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Monterey, California

THESIS

FACTORS AFFECTING THE ORGANIZATIONAL COMMITMENT OF JUNIOR OFFICERS IN THE U. S. AIR FORCE

by

Alfonso Calero Espinosa

March 1984

Thesis Advisor: G. W. Thomas

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This thesis attempts to explain the organizational commitment of the junior military officer in the Air Force. The data set was divided in two groups: officers with more than four but less than or equal to five years of active service and officers with more than seven but less than or equal to ten years of active duty. The effects of satisfaction with military life on turnover were analyzed using linear regression; satisfaction with military life was initially included in a set of selected candidate variables which were regressed with intended years of service beyond

(20. ABSTRACT Continued)

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Factors Affecting the Organizational Commitment of Junior Officers in the U.S. Air Force

by

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MASTER OF SCIENCE IN OPERATIONS RESEARCH

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March 1984

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This thesis attempts to explain the organizational commitment of the junior military officer in the Air Force. The data set was divided in two groups: officers with more than four but less than or equal to five years of active service and officers with more than seven but less than or equal to ten years of active duty . The effects of satisfaction with military life on turnover were analyzed using linear regression; satisfaction with military life was initially included in a set of selected candidate variables which were regressed with intended years of service beyond obligation as the dependent variable. Then, discriminant analysis was undertaken to investigate the influence of measures of Military versus Civilian comparative job satisfaction on the long-term career decision and the short-term turnover decision. A final regression model was tested using satisfaction with military life as the dependent variable and the set of variables representing the perception of alternative job opportunities in the civilian sector as candidate explanatory variables. Knowledge of the relative influence of the several variables analyzed in this study will provide manpower planners with useful information to evaluate the extent to which personnel policies may be successful in managing the problem of junior officer retention.

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I. INTRODUCTION

A. OVERVIEW

Turnover in the Air Force is a critical and serious problem, and especially so since the advent of the All Volunteer Force. Now, the Air Force must compete more actively with civilian organizations for manpower resources and this competition is clearly manifested in the problem of retaining officers in general and junior officers in particular. After recruiting and training young people, the Air Force must retain these qualified individuals not only because of the increasing costs of recruiting and training replacements but also because of the loss of readiness and effectiveness which parallels the loss of personnel.

Turnover process in the military is not only an economic problem; it is a decisive factor in the readiness level of the Nation. "During the 1978-1980 period, pilots with six to eleven years of experience were leaving the service at rates of up to 80% in some weapon systems. The cost of these losses to the Air Force exceeds $500,000 per pilot in training and the overall impact is a loss of expertise essential to the Air Force function". [Ref. 1 p. 1]

Between 1970 and 1980 the number of personnel in the United States Armed Forces serving on active duty decreased by 33%, but the budget outlays for the military personnel payroll increased from $23 billion to $30 billion per year. This means an increase of 33%. Additionally the budget outlays for the military retirement system increased by 325% in the same period of time. [Ref. 2, pp. 1-12]

Numerous studies have been undertaken both in the military and in the civilian environment to determine why their

members resign and, conversely, why they remain. From the Air Force standpoint, turnover is important because of its direct influence on costs and efficiency. Costs are particularly large in the case of pilots and it is therefore very important to understand the nature and causes of Air Force personnel turnover.

Researchers have identified numerous causal factors and intervening variables associated with voluntary turnover. Tenure, age, race, pay, family, and promotion, for example, are among the causal factors identified. Satisfaction, expectations, and opportunity, are examples of intervening variables. Opportunity is interpreted here as "the perception of alternative employment outside of the organization to which the individual belongs". [Ref. 3]

E. BACKGROUND

To improve the quality of survey data and to link survey data to policy formulation and research needs, the office of the Secretary of Defence contracted with the Rand Corporation in 1977 to develop a long-term integrated survey research project to support policy changes and provide information about the individual preferences, attitudes, and past behavior of military personnel in response to policy changes. [Ref. 4]

The 1978-1979 DOD Survey for Officers and Enlisted Personnel sought as one of its major objectives to provide policy - sensitive information about military life cycles, including career orientations, responses to policies that affect military members and their households, and decisions to leave the military. This study intends to overview the 1978-1979 DOD survey of officers, focusing on the junior officer community of the U.S. Air Force, using the survey questionnaire Form 3 to study the factors that most influence the decision to stay or leave the organization.

The survey, designed to focus on the military population as it existed in 1978, was administered to personnel in four questionnaire variants, developed in two alternative forms to target specific military populations. Forms 1 and 2 were administered to enlisted personnel and Forms 3 and 4 were administered to officers. The Survey was issued worldwide in January 1979 to men and women in all four military services and data collection was completed in June 1979. The results of this survey contain information to support research in a variety of manpower issue areas such as retirement, pay, promotion, retention and attitudinal factors of military personnel toward their environment. Form 3, which corresponds to officers and deals with family economic and labor force factors, provided comprehensive information on military family income and how military personnel make decisions regarding re-enlistment, separation and retirement. The data from this form will support such analysis as the comparison of military and civilian incomes for equivalent age and education groups, projected career patterns under different retirement options, and projected re-enlistment decisions under various bonus alternatives and retirement options. Military compensation, military family income, labor force participation, and the relationship of these variables to the re-enlistment decision were deemed sufficiently important to warrant complete coverage on one version of the survey. [Ref. 4]

In the Air Force, the survey was administered by the Consolidated Base Personnel Office (CBPO'S) in coordination with the Air Force Military Personnel Center. Administrators were provided with rosters of individuals selected for the survey and asked to indicate wether each person on the list received and returned a questionnaire packet.

This study focuses on Form 3 because this questionnaire provides the necessary information to perform a systematic

TABLE I

Form 3 - Response Summary

Questionnaires Rate		Number
Fielded	3388	
Returned	2511	100.4% of Required
Required	2500	73.8% of Fielded

Source: Description of officers and enlisted
personnel in the U.S. Armed Forces.
Zahava D.Doering ,et al, 1982

analysis of the turnover process. Table I summarizes the responses obtained among officers of the Air Force when the DOD-RAND survey was administered.

C. PROBLEM STATEMENT

While the military in general, and the Air Force in particular, has conducted many studies based on surveys administered to their officers, few have dealt with the hard to quantify issues of commitment, career orientation, cohesion, institutional values, working conditions, family conflicts, civilian comparisons and choice constraints. This study attempts to determine the different factors which affect voluntary terminations in the Air Force junior officer community by analyzing absolute levels of Satisfaction with Military Life in first instance and then by analyzing the extent to which junior officers are satisfied with military life and working conditions relative to *alternatives* provided by the civilian labor sector.

Ultimately, this work attempts to establish, if it exists, a differentiation between factors affecting long-term and short- term behavior in the junior officer corps.

Studies of turnover in the military have tended to focus only on one class of factors which influence voluntary terminations and to ignore other classes of factors apparently important to the problem. The DOD-RAND Survey, covers many of the dimensions which are relevant to the turnover decision.

II. LITERATURE REVIEW

A. GENERAL NOTES ON TURNOVER

Organizations are the primary factors in our economic, political, religious and, social system. We earn our livelihood through organizations and in our political system we collectively choose our leaders. We join organizations for almost all of our activities and there seems to be an organization tailor-made for every purpose.

Organizations play a major role in modern society. Just as we join the organizations that play such major roles in our lives for many reasons, we also withdraw from these organizations for diverse and plentiful reasons.

Generally, the effect of withdrawal from an organization (by means of absenteeism or turnover) is negative on the organization, and a very large amount of work has been published in the field of withdrawal in both of its forms: absenteeism and turnover. The difference between these terms is that absenteeism "may cause a temporary slowdown in an otherwise smooth running production operation and cause loss of production and, hence, loss of revenue or increased expense. Turnover generally requires that replacements be recruited, trained, and given the time to gain proficiency on the job, all of which represent costs to the organization". [Ref. 3 p.26]

In this study, only voluntary turnover was considered, this is, the study was concerned with the movement across the membership boundary of an organization which is initiated by the individual. From now on, the word turnover will be used as synonymous with voluntary turnover.

Voluntary leaving from an organization is almost invariably the result of a comparison of alternatives on the part of the individual. When his or her present work situation falls below that comparison level then a quit results. Thus, it is critical to understand how workers make comparisons between their present job and other jobs which they perceive to be alternatives to the present one.

The idea of comparison level for alternatives is well established by Thibault and Kelly's model. According to this theoretical model, the comparison level is a ".....standard by which the person evaluates the rewards and costs of a given relationship in terms of what he feels he *deserves*. Relationships, the outcome of which fall above the comparison level, would be relatively *satisfying and attractive* to the member: those entailing outcomes that fall below the comparison level would be relatively *unsatisfying and unattractive*. The location of the comparison level on the person's scale of outcomes will be influenced by all of the outcomes known to the member; either by direct experience or symbolically. It may be taken to be some modal or average value of all outcomes, each outcome weighted by its *salience*, or strength of instigation...". [Ref. 5]

The central point about the comparison level is that it determines whether or not workers are happy with their jobs, but it does not determine whether or not they leave them. Then a comparison level *for alternatives* will give to the worker a reference to whether or not he or she leaves the job. According to this, people sometimes stay in jobs that they do not like (lack of alternatives) or sometimes they quit jobs that they like (better alternatives). These ideas will be useful later in this study when the effect of total job satisfaction on the turnover process is analyzed.

Closely related with the Thibault-Kelly model is the work of March and Simon whose framework can be stated as follows:

- "Each participant and group of participants receives from the organization inducements in return for which he makes to the organization contributions.
- Each participant will continue his participation in an organization only so long as the inducements offered him are as great or greater (measured in terms of his values and in terms of the alternatives open to him) than the contributions he is asked to make.". [Ref. 6 p.84]

Basically what March and Simon suggested is that individual satisfaction is just the balance among inducements and contributions, i.e., if the inducements are greater than the contributions the individual's satisfaction will be positive, if not, the result will be dissatisfaction and the consequence will be a search for alternatives able to bring them greater satisfaction. Accordingly, low satisfaction is treated by Simon as a precipitator of search for more satisfying employment and the search itself as a behavioral link between job satisfaction and the decision to quit. When search is unsuccessful, the individual's aspirations are adjusted so that the formerly unsatisfying job is defined as satisfying, or at least acceptable, on the personal satisfaction - dissatisfaction scale. Then, workers continually move toward increased satisfaction, whether by quitting jobs and taking better ones, or by redefining their aspirations so that "bad" jobs become "acceptable."

A third theoretical perspective which is related to the analysis of turnover is the work done by Luce and Raiffa in their approach to the problem of quitting as a game in which the players are employer and employee and the actions of both participants determine the outcomes (gains or losses) of each. The game could be cooperative or not cooperative. In a cooperative game, players are allowed to

make preplay arrangements for the purpose of binding agreements. A zero-sum game is the one in which the gains of one part equal the losses of the other; nonzero-sum games are those in which the total amount of gain and loss is not fixed. [Ref. 7 pp. 88-91]

In spite of the interesting and original approach of Luce and Raiffa to the turnover phenomena, the Thibault-Kelley and March-Simon models are more useful when we want to analyze some of the key questions about quitting which are very difficult to typify in a symmetric matrix as is done in the game approach.

The approach to the turnover process in this thesis was framed in terms of the cognitive and evaluative process of an individual facing a pre-determined unresponsive set of alternatives.

To understand how workers make comparisons between their present job and other jobs which they perceive to be alternatives to the present one, we decided to differentiate between civilian and military voluntary terminations.

B. TURNOVER IN THE CIVILIAN SECTOR

Only those key questions addressed in the literature on civilian job quits which are relevant and useful for comparison purposes with turnover in the military are considered here.

Those job characteristics that were considered crucial in the worker's consideration to forming the comparison level for alternatives, can be summarized as follows:

1. Working Conditions and Conveniences

Intuitively one could argue that workers prefer jobs with more conveniencies and better working conditions to

otherwise equal jobs with lower levels of these characteristics. Actually, there is not much evidence on the role of these work peculiarities in workers decisions to quit their jobs. These characteristics are closely related to psychological rewards and amenities. There is a large literature on the effects of these on job satisfaction and its effect on voluntary withdrawal or turnover. Detailed reviews of this psychological research are to be found in Mobley, Griffeth, Hand and Meglino, Porter and Steers, Schuh, Forrest, Cummings and Johnson, and Price. Most of these researchers base their findings upon bivariate (zero-order) correlations and they tend to show a modest correlation between job satisfaction and turnover.

This low correlation or "weak" dependence is a factor in developing this model. In this study, quits are relevant to satisfaction and satisfaction strongly enough correlated with working conditions to focus our attention on these characteristics. Especially interesting are the empirical results of Freeman who included a single overall job satisfaction measure in his logistic models of quit probability. He suggests that the various psychic rewards, conveniencies and working conditions that are the components of job satisfaction measures, have important effects on quitting behavior. [Ref. 8 pp. 362-366]

2. Security

Given the generally undesirable consequences of job loss, workers would seem to have ample reason to prefer a job with low loss probability to an otherwise equivalent job with higher loss probability. Accordingly, firing or risk of layoff would be a major factor affecting the likelihood of quitting. [Ref. 9 pp. 652-670]

From the financial standpoint, job loss has the incovenience of interrupting the flow of earnings from

employment and, parallel to this, the expense of search for new job. From the psychological standpoint, the consequences of layoff appear to be even more detrimental. For a complete review of the effects of job loss on an individual's psychology see Breenner. [Ref. 10]

In spite of the fact that job security plays an important role in both theory and empirical research on voluntary terminations in civilian employment, these civilian studies are relevant to military personnel at an abstract level only, as we will explain later.

3. Promotion Opportunities

Promotion opportunities are a factor which has been hypothesized to play an important role in the worker's decision to quit or not to quit his present job. This factor was once thought to be related to the size of the firm. Arthur Ross, argues that large firms tend to have low turnover rates "probably because of abundant opportunities for promotion and transfer" [Ref. 11 p.915]. However, In 1968, Stoikov and Raimon find negative coefficients for firm size in their cross-sectional analysis of turnover rates based on 1963 and 1966 industry-level data. However, Burton and Parker found that with the addition of industrial characteristics to the analysis those negative effects become positive ones [Ref. 12 pp.189-216]. Thus, the empirical evidence of the effects of firm size on quit rates is not consistent.

4. Earnings

Pay has been considered as a dominant or even exclusive dimension of job quality in the last fifteen years. Job search models, almost without exception, assume that workers move among jobs only to maximize their wage rate or expected earnings. Researchers who have based their theories on this

criteria are Parsons; Lippman and McCall; Salop; Mortensen and Gronau.

On the other hand, a significant fraction of empirical studies of quits and quit rates suggest that the effect of pay on turnover does not necessarily dominate the effects of other job considerations. Important among these is the work of Stoikov and Raimon. In their industry-level analysis of quit rates they conclude that establishment size and unionism become more significant determinants of quit rates when business conditions are good while the pay-driven, economic approach to leaving seems to work best, when business conditions are slow. [Ref. 13 pp. 1283-1298]

C. TURNOVER IN THE MILITARY

There are fundamental differences between employment practices in the military and civilian sectors of the U.S. labor force. Recognition of these differences allows us to identify circumstances under which conclusions from civilian sector studies can, or cannot, be applied to military settings.

One of the most important difference between the civilian and military sectors is that the law grants civilians the right to quit a job at any time for any reason, while this decision has special characteristics in the Armed Forces where the individual usually must remain in the service until completion of his term of commitment. This fact implies that voluntary terminations from military service may be especially difficult to analyze, since voluntary turnover may be made to appear as involuntary. Furthermore, there is an important difference between the procedures used by officers and enlisted to request separation from the Armed Forces. The officer must submit a letter of resignation through the chain of command, stating his or

her reasons for requesting separation from the service. The enlisted person must commit a conscious act, the signing of a new contract, to remain in the service. Thus, by doing nothing, the enlisted person allows the enlistment period to expire and the enlistee automatically leaves the service. In contrast, by doing nothing the officer automatically continues in the service as an officer. A brief examination on the determinants of voluntary terminations from military service could include the job quit determinants described below.

1. Working Conditions and Conveniences

In the Armed Forces, as in the civilian sector, the employer attempts to provide conveniences, psychological rewards and acceptable working conditions for members of his organization. Because of this, factors in the turnover process are very difficult to evaluate directly. It is customary to use survey questions to measure the impact of working conditions, psychological rewards and conveniences on job satisfaction. In this study the quit phenomena is analyzed using satisfaction as an absolute value, first, to validate findings in the literature and then as a relative measure for comparison levels of alternatives, that is, how well respondents are satisfied with their jobs, compared with other (civilian) jobs which they believe are available to them.

Considerable effort has been expended by a variety of researchers to understand the ways in which voluntary turnover from military service is affected by those factors mentioned earlier. The procedure to measure their impact on the process of turnover had been the use of survey questions which ask respondents to evaluate them indirectly. The majority of the studies of military turnover fail to measure

the effects of comparison levels for alternatives, i.e., a lot of research has been done concerning the motivations of individuals to quit their jobs, but very little concerning the actual decision to quit, given a set of alternatives for comparison purposes. The work of Fletcher and Giesler, for example, has interesting implications about the impact of satisfaction with military life, on the decision of subsequent re-enlistments past the first, [Ref. 14]. However, this study relating attitude data from the Navy Occupational Task Analysis Programs to re-enlistment decisions, does not offer clear conclusions; the effects of age differences among personnel and of civilian - Navy job quality differences are not isolated.

Buddin, in his study on satisfaction with geographic location and its effects on attrition and failure to re-enlist, used data from service records of the 1975 cohort of nonprior service accessions to perform multivariate analysis of post-training attrition in the Army and Air Force. He found that in the Air Force, the effect of duty location is stronger than in the Army [Ref. 15]. This service difference is difficult to explain, but perhaps Army recruits will more readily accept any job location.

Another interesting factor studied by researchers is the level of pre-service expectations as an attitudinal characteristic that influences the decision to remain in or depart from the Armed Forces. Landau and Farkas, collected completed questionnaires from 4,911 Navy recruits during the fourth day of training and then compared these with service records to ascertain which respondents completed training and which dropped out. They found that recruits who completed the training period were those with more "realistic" expectations about military life [Ref. 16]. Of course the "realistic" image may be more a result of the recruiting effort than of personal feelings on the part of the recruit.

In their explanation of the mechanism by which specific factors affect overall satisfaction, Porter and Steers applied the concept of met expectations:

"The concept of met expectations may be viewed as the discrepancy between what a person encounters on his job in the way of positive and negative experiences and what he expected to encounter". [Ref. 19 p.152]

Blackburn and Randall, in their study of determinants of turnover and job satisfaction among Air Force junior officers, found that pay does not play the role depicted in their synthesized turnover model. [Ref. 3]. Porter and Steers reported a consistently negative relationship between the level of pay and opportunity for promotion and turnover. They conclude that expectancy theory may explain how these factors affect turnover. [Ref. 19]

Review of studies involving pay and promotions by Mobley and Griffeth, revealed that since 1973, with the exception of Price, the findings have shown a lack of relationship with turnover.

2. Security

Job security plays an important role in both theoretical and empirical research on voluntary turnover from civilian employment: as the probability of being fired increases, workers prefer to quit their jobs. However, this factor is less relevant for military personnel because the growing demand of "new hires" in the Armed Forces provides clear evidence that military personnel need not worry about being declared surplus employees. To some extent security may be viewed as uncertain for officers but not as a threat that could constitute an attrition problem. Accordingly, low security does not seem to be the cause of significant amounts of unwanted attrition from the U.S. Armed Services.

3. Compensations and Benefits

In addition to base pay, personnel in the Armed Forces also receive a variety of special and incentive payments such as re-enlistment bonuses, proficiency pay, allowances, and deferred compensation known as retirement pay but commonly paid upon termination from active military duty rather than upon actual retirement. In addition to pay, military personnel receive benefits, such as medical care, housing and food, access to buying services designed to provide them and their dependents with goods and services below normal retail prices. This remuneratory system is especially difficult to analyze when we want to consider it as a turnover determinant in the military because its complexity and multidirectionality make it difficult to project into the future when individuals attempt to plan their careers. For example, the present value of deferred compensation is properly calculated with a formula not widely understood by the general public (Wall Street Journal, 1982). Ens, examines the relative impacts of variables, re-enlistment bonuses, proficiency pay and base pay on termination at the end of the first term of service and finds that re-enlistment bonuses have the greatest effect when paid in a lump sum. A survey study by the Air Force Human Resources Laboratory reports that deferred compensation (retirement benefits) has little influence on career decisions by first term enlistees, but becomes a major influence by the seventh year of service. This is a fact that this study confirmed in the analysis presented in Chapter IV. This study found that for junior Air Force officers in the fourth and fifth year of service, retirement benefits are not a strong factor in their organizational commitment, however, it is an important variable when the junior officer is in his tenth year of service.

In summary, the relationship of compensation and benefits to voluntary turnover from the military is controversial. Evidence on this subject is mixed, with some studies finding that pay, compensation and benefits has an importance which varies over the course of the military career; other studies find that pay is a predominant factor; and still other studies show pay and benefits to be a secondary determinants. It appears that the complexity of the military compensation system affects the way in which military personnel perceive the value of their remuneration.

4. Summary

This brief review of literature on voluntary turnover indicates that studies of quits in the civilian sector lead to conclusions which are for the most part consistent with those found in military studies of the All-Volunteer force. This thesis attempts to build a model able to identify the factors which affect organizational commitment using a measure for career orientation, applied to homogeneous groups of junior officers in distinct length of service to control for the effects of tenure and pertaining to specific distinct categories for classificatory purposes. In addition, this thesis uses multivariate analysis to determine which comparative job conditions are most influential in determining satisfaction with military life, considered as an absolute value, and then, compared with a set of alternatives provided for the civilian sector.

III. RESEARCH APPROACH

A. RESEARCH OBJECTIVES

In light of the relationships identified in the literature among the determinants of turnover, the objectives of this research are: first, to estimate the relationship between the determinants of turnover and an expression for organizational commitment; second, to examine the relationships between measures for career orientation and measures of alternative job comparisons; and finally, to examine the relationship of satisfaction with military life to measures of alternative job comparisons for junior officers in the U.S. Air Force.

Some of the major questions that this thesis intends to answer are:

- How is career orientation affected by the junior officer's approach to completion of his time until initial obligation completed ?
- How do sociodemographic and job characteristics influence the junior officer's decision to stay or leave the organization ?
- How does comparison between the civilian job environment and the military system influence career orientation of the junior officer ?
- How is total satisfaction with military life influenced by alternative job comparisons ?
- What alternative job comparisons are the most influential determinants of overall satisfaction with military life?

- How important are working conditions to the decision to remain in the organization ?

B. SELECTION OF THE OFFICER SAMPLE

The considerations taken into acount in selecting the data set for study can be related as follows:

1. Only junior officers belonging to the operational designator were included in the sample. Officers belonging to the medical, legal and religious specialties are usually exposed to educational and training experiences outside the military environment and they possess recognized professional civilian skills, or callings, and tend to have a strong sense of identification with civilian professional organizations which provide them with a much different frame of reference from which to evaluate their military situation. [Ref. 18]
2. Female and ethnic groups different from white caucassian were excluded from the study in order to get homogeneity without decreasing the size of the sample given that their numbers are small (only 2.8% of the respondents were female and the 93% of the same community was white caucassian).
3. Officers with less than one year of active duty were not considered because a majority of the respondents in this subset were still in training or were relatively new to their operational billet. Further, the lack of military and operational experience on the part of these officers, tended to prevent them from being able to make meaningful comparisons between their military job situation and a comparable civilian job situation.

4. By definition, the junior officers considered were those in the grades of Lieutenant (first or second), Captain and Major since they tended to have a strong orientation toward a twenty year career.
5. After the exclusions above our data represent 87% of the total number of operational designator members who answered the RAND survey. The final sample consists of 412 male caucasian Air Force junior officers with more than one and less than eleven years of active duty, belonging to the operational designator of the U.S. Air Force.
6. Officers with more than ten years of service were excluded.

1. Grouping the Sample

The sample for study consisted of 412 junior officers after the exclusion of missing cases and members of those groups not significants to the analysis of organizational commitment. The cases in the data set were then combined into two different basic groups and three different categorizations of these groups as it is shown in Table II.

- GROUP ONE: Junior officers with more than or equal to four years of active duty and less than or equal to five years of active duty who were within their initial obligated service. This group was conformed by 105 valid cases. See Table II.

- GROUP TWO: Junior officers with more than or equal seven years of active duty and less than or equal ten years of service who were serving beyond completion of their initial obligated service. This subset contain 91 valid cases. See Table II.

TABLE II

Grouping of the Data Set

Group	Group-Charact.	Valid Cases	Analy.Approach
ONE	4≤LOS≤5 IO=1	n = 105	Regression
TWO	7≤LOS≤10 IO=0	n = 91	Regression
ONE:Stayer/ Leaver	4≤LOS≤5 IO=1 CO>1	n = 102	Discriminant
TWO:Stayer/ Leaver	7≤LOS≤10 IO=0 CO≥1	n = 88	Discriminant
ONE:Career/ Non-Career	4≤LOS≤5 IO=1 Q12≥20	n = 98	Discriminant
TWO: Career/ Non-Career	7≤LOS≤10 IO=0 Q12≥20	n = 84	Discriminant

Note:

LOS	= Current Length of Service	1≤LOS≤10
IO	= Within Initial Obligation	(o,1)
CO	= Career Orientation	0<CO<27
Q12	= Intended Years of Service	4≤Q12≤30

Basic Groups Frequencies

	LOS = Curret Length of Service								
	2	3	4	5	6	7	8	9	10
IO	37	51	49	56	33	19	28	11	4
NOBLI	6	1	3	8	8	18	21	24	28

Missing cases = 7

IO : Junior Officers Within Initial Obligation
NOBLI: Junior Officers Without Obligation

C. SELECTION OF FACTORS INFLUENCING ORGANIZATIONAL COMMITMENT

Initially, the general factors which constitute the original structure of the RAND-DOD survey were considered. These ten general factors appear in Table III.

TABLE III

General Factors that Affect Organizational Commitment

I	Military Background
II	Service Plans
III	Military Work Experience
IV	Individual Characteristics
V	Current Housing Arrangements
VI	Military Compensation and Benefits
VII	Military Retirement System
VIII	Civilian Labor Force Experience
IX	Family Resources
X	Civilian Job Search

Source: Description of Officers and Enlisted personnel in the U.S. Armed Forces
Zahava D. Doering and William P. Hotzler, 1982

After a careful inspection of these ten categories, Factor V, "Current Housing Arrangements", and Factor VII, "Military Retirement System", were eliminated because the variables they contain are reflected in one or more of the other factors.

The remaining eight general factors may be summarized as follows:

1. Military Background:

   Variables which relate characteristics such as years of service, pay grade ,assignment location , source of commission , and other work related characteristics.

2. Service Plans:

   Variables which relate expected years of service, satisfaction with military life,and potential reasons for leaving the service.

3. Military Work Experience:

   Variables used to measure work-load and working schedule.

4. Individual Characteristics:

   Variables describing personal traits, such as race, age, marital status and spouse's education if married. These constitute the demographic variables.

5. Military Compensations and Benefits:

   Variables relating basic compensation allowances, and extra payments.

6. Civilian Labor Force Experience:

   Variables which relate spouse gross earnings.

7. Familiy Resources:

   Variables used to measure the financial situation of the family and to compare it with civilian job situations.

8. Civilian Job Search:

   Variables which compare perceived military and civilian work conditions.

D. SET OF CANDIDATE EXPLANATORY VARIABLES

The selected eight general factors include 159 variables (each one corresponding to one of the questions of the survey, excluding the two factors not considered in this analysis). Some obvious dependencies existed among some of these variables. They were reduced to a set of fifty three variables, still a very large set of predictors. This result is shown in Table IV.

Frequency analysis, correlation analysis, crosstabulation, trial and error and finally regression were used to explore how the 159 variables interact and how in some instances they could be combined to obtain satisfactory predictors. Appendix A shows the questionnaire items corresponding to Form 3 of the DOD-RAND survey which were selected as the group of twenty five variables finally selected as the candidate variables. These are listed in Table V.

This final set of variables can be described according to the category in which they belong as follows:

a. Military Background and Military Work Experience

Academy as Source Of Commission	(ACAD)
Officers Traig. School procurement source	(OTS)
ROTC-Regular procurement program	(ROTREG)
Working out of specialty	(OUTDESIG)

b. Service Plans and Individual Characterisrics

Family Separation	(Q22F)
Reasonable Personnel Policies	(Q22H)
Offer Of Civilian Job During Last Year	(Q22M)
Unreasonable Weekly Work Schedule	(Q22S)
Age at Service Entry	(Q32)

TABLE IV

Preselected Variables

	VARIABLE NAME	CODED NAME	#OF VARIABLES
1)	Military Background		
	Academy source of commission	ACAD	1
	Officers training program	OTS	1
	ROTS-Regular	ROTREG	1
	Serving Initial Oblig.	INOBLI	1
	Remaining years obligated serv.	Q7	1
	Feelings about current location	Q10	1
	Current length of service	LOS	1
2)	Service Plans		
	Family separat.reason to leave	Q22F	1
	Personnel policies	Q22H	1
	Promotion opportunities	Q22K	1
	Better civ.job opportun.	Q22M	1
	Reduction military benefits	Q22N	1
	Work schedule	Q22S	1
3)	Military Work Experience		
	Work out of specialty	OUTDESIG	1
	Time Worked during regu. shedule	Q25	1
	Time Worked outside regu.shedule	Q26	1
	Total Time Worked per week	Q27	1
4)	Individual Characteristics		
	Age Last Berthday	Q31	1
	Age at Service Entry	Q32	1
	Racial or Ethnic Group	WHITE	1
	Present Marital Status	MARRIED	1
	Own house	HOUSE	1
5)	Military Compensations and Benefits		
	Monthly Basic Paymen (Gross)	Q59	1
	Month. Basic Allow.Quart.(BAQ)	Q60	1
	Month. Basic Allow.Subsi.(BAS)	Q61	1
	Not receiving special allowance	Q63A	1
	Total Gross Amount Received	Q64	1
	Unused Official Military Leave Days	Q71	1
6)	Civilian Labor Force Experience		
	Spouse Gross Earnings,1978	Q81	1
7)	Family Resources		
	Total Family Income	Q84	1
8)	Civilian Job Search		
	Civilian Job Offers	Q88	1
	Probability of Finding Civ.Job	Q89	1
	Expected Earnings with Civ.Job	Q90	1
	Probability of using military Skills in Civil Job	Q91	1
	Comparison of Working Condition Civil vrs. Military	Q93A to Q93M	13
	Comparison civ. vs. Mil. Job Compensations	Q94	1
	Expectations About Military life	Q95A to Q95D	4
	Satisfaction with Military Life	Q96	1

c. Military Compensation and Benefits

None Special Allowance Received	(Q63A)

d. Civilian Job Search

Probab.Of Using Military Skills In Civil	(Q91)
Comparison of Civilian and Military Job Conditions	
Supervisors	(Q93A)
Having a say	(Q93B)
Retirement benefits	(Q93C)
Interesting work	(Q93E)
Wages	(Q93F)
Training opportunities	(Q93H)
Co-workers	(Q93I)
Work-schedule	(Q93J)
Work equipment	(A93L)
Compensations and Benefits	(Q94)
Military life as expected	(Q95A)
Military Pay and Benefits	(Q95C)
Family better off if left military	(Q95D)
Satisfaction with military life	(Q96)

TABLE V

Selected Predictors

LABEL	VARIABLE	CORRELAT.	GROUP
ACAD	Academy as Procur. Program...	-0.115	I
OTS	Offic.Training Progra.Source.	-0.022"	
ROTREG	Rotc-Regular Procur.Source...	0.081"	
Q22F	Family Separ.reason to leave.	-0.094	II
Q22H	Reasonable Personnal Policies.		
Q22M	Offer civi.job rea.to leave..	-0.130	"
Q22S	Work sched. reason to leave..	-0.133	"
OUTDES	Work out of specially........	-0.104	III
Q32	Age at Service Entry	0.093	IV
Q63A	None special allowan. receiv.	-0.180	VI
Q91	Probability of use of military skills in civil...............	-0.162	X
Comparisson of civilian vs. military job conditions.			
Q93A	Supervisors...............	0.180	"
Q93B	Having say................	0.197	"
Q93C	Retirement benefits.......	0.206	"
Q93E	Interesting job...........	0.121	"
Q93F	Wages.....................	0.115	"
Q93H	Training..................	0.081	"
Q93I	Co-workers................	0.145	"
Q93J	Work-schedule.............	0.129	"
Q93L	Equipment.................	0.110	"
Q94	Compensation civ. vs. military job...........................	-0.111	"
Q95A	Military life as expected....	-0.212	"
Q95C	Military Pay and Benefits....	-0.079	"
Q95D	Family better off if left the military	0.313	"
Q96	Satisfaction with mili.life..	0.455	"

E. MEASURES OF ORGANIZATIONAL COMMITMENT

1. Satisfaction With Military Life

Many studies of the turnover process in the military conclude that "total job satisfaction" occupies the central role in the decision to withdraw from the organization. Porter and Steers [Ref. 19], cited fourteen studies that confirm that overall job satisfaction is inversely related to turnover,i.e., when satisfaction increases turnover decreases.

The DOD-RAND survey contains a specific question about absolute levels of overall satisfaction with military life with responses ranging from 1 (very dissatisfied) to 7 (very satisfied). While this measure of the absolute level of satisfaction is important in its own right, this thesis attempts to obtain additional information about satisfaction with military service as compared with satisfaction that is perceived to be available from alternatives in the civilian sector. This variable is considered as both an explanatory variable and as a dependent variable in different aspects of the analysis.

2. Intended Years Beyond Obligatory Service

The second option in considering a measure for organizational commitment is a variable constructed from three survey questions. This combination of variables or construct will be referred to as "Career Orientation"(CO);

$CO = Q12 - TLOS$,

where:

Q12 =Intended Total Years Of Sevice Before Leaving

TLOS = Current Length Of Service + Remaining Initial Obligation

i.e., $TLCS = LOS + IC$.

This construct was selected as the dependent variable for a preliminary regression analysis on the selected independent variables because it's use will enable comparisons with earlier studies. A career orientation value of zero means that the junior officer intended to serve only his remaining obligation. A career orientation value greater than zero gives an indication of the expected career duration of the junior officer.

3. Short-Term Behavior

The same measure for Career Orientation, (CO), was used to construct a dummy[1] criterion variable that could be used for classification purposes. If the measure of Career Orientation is greater than or equal to one, the officer is classified as a STAYER. If the measure of Career Orientation is equal to zero, the respondent is a LEAVER. The use of this type of discretional variable allows us to statistically distinguish between two or more groups of cases by using, for example, discriminant analysis where the discriminant weights are proportional to the weights for a multiple regression equation of a dichotomous group membership variable on the predictors. It is our intention to use this measure for organizational commitment in future analysis of the data group. [Ref. 20]

4. Long-Term Behavior

In a similar fashion a "dummy" or "categorical" variable was constructed to measure the long-term behavior of the members of the data group. Q12, Years of Service Intended was used to construct this indicator. If the

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[1] Dummy or categorical variables in regression analysis models are used when the effects of important "independent variables", cannot be quantified or, if they can be quantified, cannot be measured for various reasons. The values of the dummy variable indicate varying conditions or states of nature.

individual intended to stay more than or equal to twenty years in the service we labeled him as a CAREERIST; a NON-CAREERIST intended to stay less than twenty years. The intention to stay more than or equal to twenty years in the Service reflects a long-term behavior on the part of the respondent.

F. FUNCTIONAL RELATIONSHIP

In previous sections the independent variables and measures for Organizational Commitment were defined. The anlytical techniques assume a linear relationship between measures of Organizational Commitment and these explanatory variables.

The assumption of linearity in the model, offers the following advantages:

1. The models are mathematically and statistically tractable.
2. Weights can be used to construct a relationship and make further analysis.
3. The model has precedent and reference can be made to past studies and parameters stablished for future analysis.

The techniques for analysis of turnover may be summarized as follows:

1. Regression analysis using a stepwise technique was used for selecting the variables from the candidate variables which most influence the measure for Career Orientation (CO). This analysis constituted a preliminary step for comparison with previous studies and a first overview of long-term and short-term behavior.
2. Discriminant analysis was used to study separate sets of explanatory variables able to explain long-term

and short-term turnover decisions. One discriminant function was constructed for each case and a percentage of total classificatory power was established in each case. The set of variables, Civilian / Military Job comparisons (Q93A to Q93M), and Satisfaction with Military Life (Q96), were analyzed separately. A new linear relationship between these variables was established and analyzed.

3. Stepwise regression was performed to determine, identify, and evaluate factors in the group of variables belonging to Civilian / Military Job comparisons which better explain the level of Satisfaction With Military Life as an alternate measure for Organizational Commitment.

In summary, the analysis and results that will be presented in Chapters IV, V, and VI, are intended to establish how decisions to terminate service are related to comparisons betwen satisfaction obtained from military life and perception of alternatives in the civilian sector.

IV. PRELIMINARY ANALYSIS OF CAREER ORIENTATION

A stepwise[2] regression analysis of the selected twenty five variables shown in Table V with CO (intended years beyond obligatory service) was conducted. The results yield a preliminary analysis of the determinants of career orientation for the groups. This analysis, using intended years beyond obligatory service (CO), as a measure of organizational commitment, offered similar results to those presented by W.H. Schmidt in his study on career orientation of junior officers in the U.S. Navy. [Ref. 2]

A. GROUP ONE RESULTS

This group of junior officers, with more than or equal four years of active duty and less than or equal five years of active duty, who were within their period of initial obligation, had a mean career orientation value, CO, of 7.4 years. The mean response values for each explanatory variable are provided in Appendix B.

The average age at entry was 21.9 years and the mean for satisfaction with military life was 3.53 (on a scale of 1 for "very dissatisfied" to 7 for "very satisfied"). Commissioning source was relatively evenly divided between graduates of Air Force Academy (15.4%), Officers Training (18.3%) and the Reserve Officer Regular Training Corps (25%).

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[2] Stepwise regression is a variable selection procedure that uses the partial correlation coefficient as a measure of the importance of variables to enter the equation. [Ref. 21 pp.307-311]

As it is shown in Table VI, the stepwise regression of the selected variables with Career Orientation, produced an equation with just one explanatory variable, Satisfaction With Military Life, which was able to explain 34.5 percent of the variation in Career Orientation (an R^2 of .345).

TABLE VI

Stepwise Regression Results Group-One

Variables In The Equation	B (Coefficient)	R^2	R^2-change	Sig.ofB
Satisfaction With Mil. Life (Q96)	3.270	0.345	0.345	0.000
(Constant)	-4.140			0.017

n=105

The correlations between the variables in the model for this group are reported in Appendix B, showing a correlation value of 0.587 between the only variable in the equation and CO, Career Orientation. The regression coefficient for Satisfaction With Military Life is significant at the 0.001 level.

Is interesting to note that there exist positive and comparatively high correlations between Q96, Total Satisfaction with Military Life, and those variables pertaining to comparative job conditions, listed in Table IV, labeled as Q93A to Q93M.

B. GROUP TWO RESULTS

Group Two consisted of officers with greater than or equal to seven years of active duty but less than or equal to ten years of active duty. Appendix B shows the mean response values for each explanatory variable in the group. This group had a mean career orientation of 8.03 years and a mean age at service entry of 21.9 years. Source of commission shows important differences in this group: 46.2% of the junior officers are commissioned through Officer Training School (OTS); 29.7% from ROTC-Regular commissioning, and only 6.6% from the Air Force Academy. Mean Satistaction With Military Life was 3.8 (on a scale of 1 for "very dissatisfied" to 7 for "very satified") The means for the subset of variables comparing working conditions (Q93A to Q93M), measured on a scale of 1 (civilian job would be a lot better) to 5 (civilian job would be a lot worse), were all less than 2.5, with the exception of Q93C (Civilian versus Military Retirement Benefits) with 2.556, Q93H (Civilian versus Military Job Training Opportunities) with 2.589 and Q93I (Civilian versus Military Job People to Work With) 2.659.

The correlation matrix for the variables in the model for this group is shown in Appendix B. The variables having the highest correlations with measure of Career Orientation are Satisfation With Military Life (R = 0.383); Air Force Academy as source of commission (R = 0.251); Civilian versus Military Work Schedule (R = -0.239); Civilian versus

Military Retirement Benefits(R = 0.229), and Civilian versus Military Chance of Interesting Work(R = 0.203). Officers Training School as source of commissioning shows negative but low correlations with career orientation (R = -0.125).

The stepwise regression of the selected variables with CO, Career Orientation, produced a set of variables able to explain 28.1 percent of the variation in Career Orientation (an R^2 of 0.280). As shown in Table VII, most of this variation (14.7%) is explained by the first variable entering the equation, Satisfaction With Military Life (Q96), while the next variables entering the equation, Air Force Academy as Source of Commissioning (ACAD), Training Opportunities (Q93H) and Retirement Benefits (Q93C) have more limited effects on R^2 (4.9%, 3.9% and 4.4% respectively).

Only the variable Training Opportunities (Q93H) has a regression coefficient with negative sign (B = -1.76). The lack of training oportunities is associated with fewer years of intended service beyond the end of initial obligation. Satisfaction With Military Life (B = 2.25), Air Force Academy Source of Commissioning (B = 5.51) and Retirement Benefits (B = 1.17) all have positive regression coefficient values, hence the more a junior officer is satisfied with military life, the more he perceives job retirement benefits to be worse in his perceived civilian alternative and the more likely the Air Force Academy is to be his source of commission, and the longer he intends to stay in the military beyond completition of initial obligation.

The regression coefficients for all the variables entered in the equation are significant at the 0.05 level.

TABLE VII

Stepwise Regression Results Group Two

Variables in the Equation	B (Coeffic.)	R^2	R^2-Change	Sig.of B
Satisfaction with Mil.Life (Q96)	2.252	0.147	0.147	0.000
Air Force Academy Scur.cf Com.(ACAD)	5.510	0.196	0.049	0.025
Train.Oppor.Q93H)	-1.760	0.236	0.039	0.010
Retir.Benef.Q93C)	1.171	0.280	0.044	0.023
(Constant)	0.675			0.760

n =91

CORRELATIONS OF VARIABLES IN THE EQUATION

	Q96	ACAD	Q93H	Q93C	CO
Q96	--				
ACAD	.04	--			
Q93H	.42	.19	--		
Q93C	.04	.24	.25	--	
CO	.38	.25	.02	.22	--

C. SUMMARY OF PRELIMINARY REGRESSION ANALYSIS

1. GROUP ONE

With the exception of Q96, Satisfaction with Military Life, none of the 24 remaining variables initially considered entered the stepwise regression. Similarly, Q96 was the only variable significant at the 0.001 level.

In spite of the fact that the set of candidate variables, with the exception of Q96, were not useful in explaining Career Orientation, it is worthy of note that there was a high positive correlation among the variables belonging to the Civilian Job Search category, and Satisfaction With Military Life. This confirmed results in the literature about the preponderance of satisfaction as a "good" predictor for organizational commitment, as it was noted by Porter and Steers. [Ref. 19]

2. GROUP TWO

For this group, the results of stepwise regression were similar to those obtained for Group One in the sense that again, Total Satisfaction With Military Life, Q96, was the best predictor of Career Orientation, CO. Nevertheless, individual correlation analysis of the predictors with CO reveal significant Pearson R values and significant regression coefficients when regresion analysis was performed. Training Opportunities, Q93H, is inversely related to CO while Air Force Academy as Source of Commissioning and Retirement Benefits, Q93C, show a positive relationship. Satisfaction With Military Life explains 14.7% of the variation in Career Orientation (CO) and has a regression coefficient of 5.51 which is highly significant, while the remaining variables entering the equation have very limited effects,i.e., the three remaining variables entering the equation were able to explain 13.2% of the variability in intended years beyond obligated service (CO).

Again the high correlations between Satisfaction With Military Life and those variables in the Civilian Job Search category or alternative job opportunities was evident, suggesting further analysis of this phenomena. Complete matrix of correlations is shown in Appendix B.

V. ALTERNATIVE JOB COMPARISONS AND TURNOVER

As it was mentioned earlier in Chapter II, opportunity, interpreted as the perception of alternative job outside the Air Force, is an identified intervening variable in the turnover process. [Ref. 3]

The analysis of the selected candidate variables with intended years beyond completition of initial obligation (CO), done in Chapter IV may be seen as an attempt to interpolate between factors affecting short-term and long-term behavior. Short-term behavior reflects the decision to stay or leave at the end of current obligation. Long-term behavior reflects the decision to become a careerist (intend a total of 20 or more years of service).

Discriminant analysis was undertaken to identify separate sets of explanatory variables appropriate for the short-term decision to stay in the military and the long-term decision to stay in the organization. Officers serving within their period of initial obligation with four or five years of active duty (GROUP ONE, n=105) and the officers serving past their period of initial obligation with more than or equal to seven years of active duty and less than or equal to ten years of active duty (GROUP TWO, n=91), were subdivided in two ways: (1) Stayers and Leavers and (2) Careerists and Non-careerists.

As a result of the high correlation between Q96, Satisfaction With Military Life and those variables related with Civilian Job Search category, the candidate variables chosen to perform discriminant analysis were precisely the subset of variables whose context is related with Civilian versus Military Job conditions i.e., variables Q93A to Q93M (Table V, Chapter III).

A. GROUP ONE - STAYERS VERSUS LEAVERS

The junior officers who intended to leave the Air Force at the conclusion of their initial obligation (n1 = 54) were distinguished from those who intended further service (n2 = 48). A stepwise method was used to select a set of discriminanting variables and to construct a discriminant function which maximizes the separation of the two groups [Ref. 21]. The criterion controlling the stepwise process in this analysis was largest increase in the generalized distance as measured by Rao's V. [Ref. 23 pp.434 - 467]

The summary in Table VIII indicates that 14.5% of the variation in the discriminant function is explained by membership in the Stayers/Leavers groups (i.e., the canonical correlation squared is 0.145; the canonical correlation corresponds to eta in one-way analysis of variance).

The 0.8547 final value of Wilk's lambda associated with the discrimianant function corresponds to a Chi-square value of 15.37 with 4 degrees of freedom which is significant at the 0.004 level.

An examination of the standardized canonical discriminant function coefficients reveals the relative importance of the discriminanting variables. Ignoring sign, each coefficient represents the relative contribution of a variable to the discriminant function (these correspond to beta weights in multiple regression analysis). Thus, Q93B, Civilian versus Military Having-Say, and Q93I, Civilian versus Military People to Work With, are the most important among the discriminanting variables (R = 0.85 and R = 0.75, respectively). Job location, Q93M (R =0.44 and Training Opportunities, Q93H (R = 0.38), are the next two most influential variables.

The discriminant function constructed in this analysis correctly classifies 66.7% of the total 102 valid cases in the study.

TABLE VIII

Group One Discriminant Analysis Results

(Stayer / Leaver)

Subgroup 1 : intend stay beyond obligated service (48)

Subgroup 2 : intend leave after obligated service (54)

Variables Entered	Wilk's Lambda	Standarized Canonical Discriminant Function
Q93B- Having-say.	0.926	0.858
Q93I- People to work with.	0.890	0.758
Q93M- Job location.	0.868	-0.445
Q93H- Training opportunities.	0.854	-0.388

Canonical correlation = 0.381

For Wilk's lambda of 0.854 , Chi-square=15.37;df=4
Significance =0.004

Classification

Actual		Predicted	
		Stayer	Leaver
Stayer	48	29 (60.4%)	19 (39.6%)
Leaver	54	15 (27.8%)	39 (72.2%)

Percent of grouped cases correctly classified = 66.67%

A discriminant function constructed with only two of the variables, Q93B and Q93I, would successfully classify 67.65% of the cases. The addition of two other variables (Q93M and Q93H) to the function decreases the classificatory power by 0.98%.

B. GROUP ONE : CAREERIST VERSUS NON-CAREERISTS

An alternative grouping of junior officers within initial obligation into Careerists (n1 = 41) and Non-Careerists (n2 =54) was considered in order to analyze the factors affecting Long-Term behavior. Those who intended 20 years or more of service were classified as Careerist and those intending less than 20 years of service as Non-Careerists.

The same stepwise procedure with largest increase in Rao's V as the criterion for entering and removing variables was used to construct a discriminant function. The summary in Table IX describes this function. A canonical correlation of 0.477 indicates that 22.7% of the variation in this discriminant function was explained by the Careerist/ Non-Careerist grouping (i.e., the canonical correlation squared was 0.227).

The 0.771 final value of Wilk's lambda associated with the discriminant function corresponds to a Chi-square of 23.47 with 5 degrees of freedom which is significant at 0.0003 level.

The relative importance of the five variables included in the discriminant function was indicated by the standarized canonical discriminant function coefficients. Q93I, Civilian versus Military People to Work With, emerges as the most influential variable (R = 0.74), while Having-Say (R = 0.66) was the second most influential. The remaining variables included in the discriminant function were relatively

TABLE IX

Group One : Discriminant Analysis Results

Career / Non-Career

Subgroup 1 : intend to serve 20 or more years (41)

Subgroup 2 : intend to serve less than 20 years (54)

Variables Entered	Wilk's Lambda	Standarized Canonical Discriminant Function
Q93I People work with	0.864	0.741
Q93B Having a say	0.812	0.667
Q93L Equipment	0.796	-0.341
Q93M Location	0.786	-0.319
Q93J Work schedule	0.771	0.310

Canonical correlation = 0.477

For a Wilk's lambda of 0.771, Chi-square (5df) =23.47 (Significance 0.0003)

Classification

Actual		Predicted	
		Career	Non-career
Career	41	24 (58.5%)	17 (41.5%)
Non-career	54	12 (22.2%)	42 (77.8%)

Percent of grouped cases correctly classified = 69.47%

less influential, i.e., Q93J (R =0.31), Q93L (R = 0.34) and Q93M (R = 0.31).

This discriminant function classified correctly 69.5% of the total 95 cases. One variable alone, Q93I, could be used to correctly classify 64.21% of all cases. The addition of four other variables to the function increased the classificatory power by only 5.26 percent.

C. GROUP TWO - STAYER VERSUS LEAVER

Similar discriminant analysis was performed on Group Two, i.e., junior officers who were past their period of initial obligation and had more than or equal to seven years and less than or equal to ten years of active duty in order to analize the factors affecting short term behavior.

Junior officers in this group who intended to leave the service at the conclusion of their current obligation (n1 = 25) were distinguished from those who intended further service (n2 = 63). These 88 total cases had 7 missing values.

A stepwise method was used to select a set of discriminanting variables which maximized the separation of the two groups. The criterion controlling the stepwise process in this analysis was largest increase in the generalized distance as measured by Rao's V.

The summary of the stepwise discriminant analysis shown in Table X indicates that 17 percent of the variation in the discriminant function is explained by membership in the Stayers / Leavers subgroups (ie., the canonical correlation squared is 0.170).

The 0.83 final value of Wilk's lambda associated with the discriminant function corresponds to a Chi-square value of 15.44 with 7 degrees of freedom which is significant at the 0.03 level.

TABLE X

Group Two : Discriminant Analysis Results

Stayer / Leaver

Subgroup 1 : intend to serve 20 or more years (63)
Subgroup 2 : intend to serve less than 20 years (25)

Variables Entered	Wilk's Lambda	Standarized Canonical Discriminant Function
Q93C Retirement Benefits	0.954	0.355
Q93E Chance Interest.Work	0.915	0.550
Q93H Training Opportun.	0.889	-0.945
Q93K Job Security	0.871	0.565
Q93B Having-Say	0.857	-0.429
Q93L Medical Benefits	0.822	0.463
Q93D Wage Salary	0.829	0.544

Canonical correlation = 0.413

For a Wilk's lambda of 0.829, Chi-square (5df) =15.44 (Significance 0.03)

Classification

Actual		Predicted Stayer	Predicted Leaver
Stayer	63	62 (98.4%)	1 (1.6%)
Leaver	25	17 (68.0%)	8 (32.0%)

Percent of grouped cases correctly classified = 79.55%

An examination of the standarized canonical discriminant function coefficients reveals the relative importance of the discriminanting variables. Thus Q93H, Training Opportunities was by far the most influential discriminanting variable (R =0.94); Q93K, Job Security (R = 0.56); Q93E, Chance of Interesting Work (R = 0.55) and Q93D, Wage Salary (R = 0.54) were the next three most influential variables.

The discriminant function constructed in this analysis correctly classified 79.55 percent of the total 88 cases in the study.

A discriminant function constructed with only one of the variables, Retirement Benefits, would succesfully classify 70.45% of the cases. The addition of the remaining six variables to the function increases the classificatory power by only 9 percent.

D. GROUP TWO - CAREERIST VERSUS NON-CAREERIST

This alternative subgrouping of initial junior officers who were beyond their period of obligatory service (group two) consisted of Careerists (n1 = 56) and Non-Careerists (n2 = 28) was established in order to analyze Long-Term behavior.

The same stepwise procedure with largest increase in Rao's V as the criterion for entering and removing variables was used to construct a discriminant function. The summary in Table XI describes this function. A canonical correlation of 0.5412 indicates that 29.3 percent of the variation in this discriminant function is explanined by the Careerist / Non-Careerist subgrouping (i.e., the canonical correlation squared is 0.2928).

The 0.707 final value of Wilk's lambda associated with the discriminant function corresponds to a Chi-square of

27.21 with seven degrees of freedom which is significant at the 0.0003 level.

The relative importance of the seven variables included in the discriminant function is indicated by the standarized canonical discriminant function coefficients. Q93H, Training opportunities appears to be the most influential variable (R = 0.736) while Q93D, Medical Benefits (R = 0.53) and Q93E, Chance of Interesting Work (R = 0.53) are the next two most influential variables.

Seventy-nine percent of the total 84 cases were correctly classified by this discriminant function. Two variables alone, Retirement Benefits (Q93C), and Chance of Interesting Work (Q93E), could be used to correctly classify 73.8% of all cases. The remaining variables increased the classificatory power by only 4.8% .

E. SUMMARY AND DISCRIMINANT RESULTS

1. Stayer versus Leaver Subgroup

a) Having-Say (Q93B) and Training Opportunities(Q93H), entered the discriminant function in both groups: One and Two.

b) People to Work With (Q93I) and Job Location (Q93M), were present in Group One only.

c) Retirement Benefits(Q93C); Wage Salary(Q93F); Chance of Interesting Work(Q93E); Job Security(Q93K); and Equipement (Q93L), were present in Group Two only.

d) Membership in Stayer / Leaver subgroups explained 14.5% (canonical correlation squared) of the variation in Group One and 17.1% of the variability in Group Two.

TABLE XI

Group Two : Discriminant Analysis Results

Career / Non-career

Subgroup 1 : intend to serve 20 or more years (56)
Subgroup 2 : intend to serve less than 20 years (28)

Variables Entered	Wilk's Lambda	Standarized Canonical Discriminant Function
Q93C Retirement Benefits	0.903	0.381
Q93E Chance Intere.Work	0.829	0.530
Q93D Medical Benefits	0.806	0.530
Q93H Training Opportun.	0.781	-0.736
Q93I People to Work With	0.750	0.416
Q93K Job Security	0.729	0.375
Q93L Job Equipment	0.707	0.345

Canonical correlation = 0.541

For a Wilk's lambda of 0.707 , Chi-square(7df) = 27.21 (significance 0.0003)

Classification

Actual		Predicted Career	Predicted Non-career
Career	56	50 (89.3%)	6 (10.7%)
Non-career	28	12 (42.9%)	16 (57.1%)

Percent of grouped cases correctly classified = 78.57%

e) Having-Say (Q93B), was the most influential variable in establishing the discriminant function of Group One, and Training Opportunities (Q93H), was the most influential variable in establishing the discriminant function for Group Two.

f) The discriminant function classified correctly 66.67% of the cases in Group One and 79.55% of the cases in Group Two.

g) The prior probability of being a Stayer is 47.1% in Group One and 71.6% in Group Two. That is, we can describe Group One as leavers and Group Two as stayers.

h) The final Wilk's lambda values of 0.85 and 0.82 and canonical correlations of 0.38 and 0.41 for Group One and Group Two respectively do not indicate a very high degree of separation among the Stayers / Leavers subgroups considered in each basic group.

2. Career versus Non-Career Subgroup

a) People to Work With (Q93I), and Job Equipment (Q93L), entered the discriminant function in both groups: One and Two.

b) Having-Say (Q93B); Job Location (Q93M); and Work Schedule (Q93J), were present in the discriminant function for Group One only.

c) Variables Retirement Benefits (Q93C); Chance of Interesting Work (Q93E); Medical Benefits (Q93D); Training Opportunities (Q93H); and Job Security (Q93K) were present in Group Two only.

d) People to Work With (Q93I), was the most influential variable in establishing the discriminant function for

Group One, and Training Opportunities (Q93H), was the most influential in establishing the discriminant function of Group Two.

e) Career / Non-Career as discriminant classified correctly 69.47% of the cases in Group One and 78.57% of the cases in Group Two.

f) The prior probabilities of being a Careerist was 43.16% in Group One and 66.67% in Group Two. That is, we can describe Group One as Non-Careerists and Group Two as Careerists.

g) Membership in Career/Non-Career subgroups explains 22.8% (canonical correlation squared) of the variation in Group One and 29.28% of the variation in Group Two.

h) The final Wilk's lambda values of 0.77 and 0.70 and canonical correlations of 0.47 and 0.54 for Group One and Group Two respectively do not indicate a high degree of separation among the Careerist/Non-Careerist subgroups. This result was better than the one obtained with the Stayer/Leaver subgroup on the same basic groups.

F. SATISFACTION WITH MILITARY LIFE AND CAREER COMMITMENT

As it was stated in Chapter II, Literature Review, low satisfaction was determined to be a precipitator of search for more satisfying employment and the search itself as a behavioral link between job satisfaction and the decision to quit. [Ref. 6]

A second discriminant analysis of the Stayer / Leaver and the Careerist / Non-Careerist groupings was performed using Satisfaction with Military Life Q96, as the only independent variable, using the same stepwise method employed in

the preliminary discriminant, to analyse the classificatory power of this variable alone.

1. GROUP ONE

a. Stayer versus Leaver

The canonical correlation of 0.60 for the discriminant function constructed in the analysis of Stayer/Leaver indicated that 36 percent of the variation in the discriminant function is explained by the Stayer/Leaver distinction.

The final value of Wilk's lambda was 0.64 which corresponds to a Chi-square value of 44.04 with 1 degree of freedom. This value is significant at the 0.001 level. Pertaining results are shown in Table XII.

This discriminant function correctly classifies 83.3% of the total 102 cases from Group One used in the analysis. Complete results of discriminant analysis are shown in Appendix C.

b. Careerist versus Non-Careerist

The second half of Table XII describes the results of the discriminant function of this subgroup Career/Non-Career using Satisfaction With Military Life Q96, as the only independent variable.

The canonical correlation of 0.58 for the discriminant function constructed in the analysis of Career / Non-Career, indicates that 33.6 percent of the variation in the discriminant function is explained by the Career / Non-Career distinction.

The final value of Wilk's lambda was 0.66 which corresponds to a Chi-square value of 40.6 with 1 degree of freedom. This value was significant at the 0.001 level. The discriminant function correctly classifies 81.4% of the total 102 cases from Group One used in the analysis.

TABLE XII

Results of Discriminant Analysis

GROUP ONE: Satisfaction With Military Life Alone

Stayer (48) / Leaver (54)

Wilk's Lambda 0.642
Canonical Correlation 0.598
Chi- Square value 44.04
With 1 degree of freedom,significant at the 0.00 level
Percent of grouped cases correctly classified = 83.3%

Career (44) / Non-Career (58)

Wilk's Lambda 0.664
Canonical Correlation 0.578
Chi- Square value 40.6
With 1 degree of freedom,significant at the 0.00 level
Percent of grouped cases correctly classified = 81.4%

2. GROUP TWO

a. Stayer versus Leaver

The canonical correlation of 0.29 for the discriminant function constructed in the analysis of Stayer/Leavers indicates that 8 percent of the variation in the discriminant function is explained by the Stayer / Leaver distinction.

TABLE XIII

Results of Discriminant Analysis

GROUP TWO : Satisfaction With Military Life Alone

Stayer (63) / Leaver (25)

Wilk's Lambda	0.917
Canonical Correlation	0.287
Chi- Square value	7.4

With 1 degree of freedom; significant at the .007 level

Percent of grouped cases correctly classified = 71.6%

Career (58) / Non-Career (29)

Wilk's Lambda	0.809
Canonical Correlation	0.436
Chi- Square value	17.9

With 1 degree of freedom,significant at the .001 level

Percent of grouped cases correctly classified = 74.7%

The final value of Wilk's lambda is 0.92 which corresponds to a Chi-square value of 7.4 with 1 degree of freedom. This value is significant at the 0.007 level. This discriminant function correctly classifies 71.6% of the total 88 cases from Group Two used in the analysis. Partial results are shown in Table XIII.

b. Careerist versus Non-Careerist

The second half of Table XIII describes the results of the discriminant function of this subgroup Career/Non-Career using Satisfaction With Military Life Q96, as the only independent variable. Complete results of this analysis are shown in Appendix C.

The canonical correlation of 0.436 for the discriminant function constructed in the analysis, indicates that 19 percent of the variation in the discriminant function is explained by the Career / Non-Career distinction.

The final value of Wilk's lambda is 0.809 which corresponds to a Chi-square value of 17.86 with 1 degree of freedom. This value is significant of the 0.001 level.

This discriminant function correctly classifies 74.71% of the total 87 cases from Group Two used in the analysis. Complete results are shown in Appendix C.

G. COMPARISONS

The comparison of results of discriminant analysis using the set of variables related with Civilian versus Military Work Conditions (Q93A to Q93M) and then using Satisfaction Military life (Q96) only, are shown in Table XIV.

There is a great deal of evidence of differences in the perception of military life in the two basic groups of the sample. Each group has different conceptions of career commitment in both the short and the long term classification.

For Group One, the youngest of the sample, Satisfaction with Military Life is the determining factor in their decision of remaining in the Air Force. For Group Two, this decision is more influenced by those factors related with Civilian and Military Job Conditions or, in other words, this group is more likely to use a set of comparable alternatives before they make a decision.

TABLE XIV

Comparison of Discriminant Results

Using Stepwise Method For Selecting The Discriminant Function

GROUP	SUBGROUP	DISCRIMINATORY VARIABLES	PERCENT. OF CORRECTLY CLASS. CASES
ONE n =105 4≤LOS≤5	Short-term	Civ. vs. Mil. Job Cond. (Q93A to Q93M)	66.67%
		Satisfaction with Mil. Life (Q96)	83.33%
	Long-term	Civ. vs. Mil. Job Cond. (Q93A to Q93M)	69.47%
		Satisfaction with Mil. Life (Q96)	81.37%
TWO n =91 7≤LOS≤10	Short-term	Civ. vs. Mil. Job Cond. (Q93A to Q93M)	79.55%
		Satisfaction with Mil. Life (Q96)	71.59%
	Long-term	Civ. vs. Mil. Job Cond. (Q93A to Q93M)	78.57%
		Satisfaction with Mil. Life (Q96)	74.71%

These results suggested that we investigate carefully the existing relationship between Satisfaction with Military Life, which is a somehow "vague" concept, and those variables which influence it. They appear to be the set of variables related with Civilian versus Military Job Conditions.

VI. ANALYSIS OF SATISFACTION WITH MILITARY LIFE

The results obtained in Chapters IV and V indicated that Satisfaction With Military Life was the single most important explanatory variable for measures of Career Orientation. Actually, these results were a confirmation of literature findings mentioned in Chapter II, specifically what was established by Porters and Steers about the influence of absolute levels of satisfaction on the decision to quit or remain in the organization. [Ref. 19]

This Chapter analyses the relationship between measures of relative Civilian versus Military Job conditions with Satisfaction With Military Life. The relationship between Satisfaction With Military Life (Q96), and the set of candidate independent variables (Q93A to Q93M), was tested using linear regression. Block and stepwise regression analysis of the candidate variables, Q93A to Q93M, with Satisfaction With Military Life (Q96), was performed, and diagnostics for possible ill conditioning were performed. Further, residuals were analyzed for linearity verification as shown in Appendix D.

A. RESULTS OF BLOCK AND STEPWISE REGRESSION

1. GROUP ONE RESULTS

When the set of candidate variables (Q93A to Q93M) was entered as a block into the regression model, 44.2 percent of the variation in the dependent variable, Satisfaction With Military Life (Q96), could be explained as it is indicated in Table XV, i.e., $R^2 = 0.4422$. Only four variables: Work Schedule (Q93J); Medical Benefits (Q93D); Immediate Supervisors (Q93A), and Retirement Benefits (Q93C) have a significant regression coefficient at the 0.05 level.

TABLE XV

Block and Stepwise Regression Results

GROUP ONE

(Dependent Variables: Q96)

BLOCK RESULTS.

Step	Variables	B(Coeff.)	Correlation	Signif.T
1	Job Location	0.2202	0.2202	0.2232
2	Wage Salary	0.1446	0.1514	0.2721
3	Job Security	0.0702	0.1073	0.9996
4	Training Opprt.	0.2044	0.2499	0.8332
5	Work Schedule	0.3091	0.3427	0.0200
6	Having-Say	0.3408	0.4536	0.1740
7	People to Work	0.1582	0.3099	0.8588
8	Medical Benef.	-0.1431	0.0471	0.0126
9	Job Equipement	0.0481	0.2637	0.8299
10	Promotion	0.1085	0.3529	0.5620
11	Interest.Work	0.1060	0.3314	0.1120
12	Inmed.Supervis.	0.2660	0.4684	0.0047
13	Retirem.Benef.	0.3671	0.2993	0.4852

$R^2 = 0.4442$

STEPWISE RESULTS

Variables in the Equation	B(Coeff.)	R^2	R^2-Change	Sig.of B
Inmediate Supervisors	0.480	0.219	0.219	0.000
Having - Say	0.473	0.298	0.079	0.003
Work - Schedule	0.380	0.349	0.050	0.006
Constant	0.968			0.010

n = 105

An optimal prediction equation was obtained by entering the same set of independent variables, and using a stepwise procedure to isolate the "best" subset of predictor variables, as shown in Table XV. Three variables entered the final equation: Immediate Supervisors (Q93A); Having a Say (Q93B), and Work Schedule (Q93J). The regression coefficients (B) are all positively related with Satisfaction With Military Life (Q96), the dependent variable, and there is no a marked preponderance of one regression coefficient over the others.

2. GROUP TWO RESULTS

Entered as a block, the candidate variables are able to explain 50.4 percent of the variation in Satisfaction With Military Life ($R^2 = 0.5035$). Results are shown in Table XVI. From the 13 variables in the block, only four had a significant regression coefficient at the 0.05 level: People to Work With (Q93I); Work Schedule (Q93J); Chance of Interesting Work (Q93E), and Retirement Benefits (Q93C). The negative regression coeffient presented by Q93C, (B = -0.2028), could be interpreted as a decrease in Satisfaction With Military Life when Retirement Benefits in the civilian sector were perceived to be better than in the military.

The stepwise variable selection procedure, shown in Table XVI, entered four variables into the equation: Chance of Interesting Job (Q93E); Medical Benefits (Q93D); People to Work With (Q93I), and Week Schedule (Q93J), all of them significant at the 0.05 level and positively related with Satisfaction with Military Life. Chance of Interesting Work alone, was able to explain 28.1 percent of the variation in Satisfaction With Military Life and People to Work With, Medical Benefits and Work Schedule together, were able to explain about 15 percent only.

TABLE XVI

Block and Stepwise Regression Results

GROUP TWO

(Dependent Variables: Q96)

BLOCK RESULTS.

Step	Variables	B(Coeff.)	Correlation	Signif.T
1	Job Location	0.0366	0.0366	0.2436
2	Job Equipement	0.0995	0.0979	0.2811
3	People to Work	0.4197	0.4238	0.0157
4	Medical Benef.	0.2405	0.2585	0.0898
5	Having-Say	0.1542	0.2342	0.5804
6	Work Schedule	0.1869	0.2098	0.0076
7	Job Security	0.0568	0.2397	0.7109
8	Wage Salary	0.0285	0.0136	0.0736
9	Interest.Workt	0.4488	0.5310	0.0001
10	Retirem.Benef.	-0.2028	0.0481	0.0475
11	Inmed.Supervs.	0.0574	0.3469	0.9580
12	Training Oppor.	0.1655	0.4216	0.1687
13	Promotion	0.1172	0.3194	0.2997

$R^2 = 0.5035$

STEPWISE RESULTS

Variables in the Equation	B(Coeff.)	R^2	R^2-Change	Sig.of B
Interes. Work	0.548	0.281	0.281	0.000
Medical Benef.	0.217	0.339	0.057	0.007
People to Work	0.377	0.387	0.047	0.011
Work Schedule	0.376	0.433	0.046	0.010
Constant	0.339			0.480

n = 91

B. MULTICOLLINEARITY DIAGNOSIS

Diagnosis for "ill conditioning" or multicollinearity[3] was performed following both informal and formal procedures on each group. __Informal multicollinearity__ indicators were investigated on the results obtained from block regression. Some of the results of this analysis are presented in Tables XX and XXI and they could be summarized:

1. No large change in the regression coefficient (B) for a variable when another variable enters the equation were observed in Group One or Group Two.
2. No large change in the standard error of B with the entry of subsequent variables.
3. No strong correlations between variables in the regression equation. The highest correlation found was R = 0.63, between Retirement Benefits and Medical Benefits in Group Two. Complete correlations results for Group One and Group Two are shown in Appendix E.
4. The size of the correlation values among the estimated regression coefficients and its algebraic signs, were another source of multicollinearity information. Nor large correlations size values nor negative signs were found in any case. (See Tables XX and XXI)
5. Algebraic signs in the estimated regression coefficients, opposite of those expected, were found in each group once: Medical Benefits (B = -0.1431) in Group One, and Retirement Benefits (B = -0.2028) in Group Two.

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[3] "This problem (multicollinearity) reflects the fact that when data are ill conditioned, some data series are nearly linear combinations of others and hence add very little new, independent information from which additional statistical information may be gleaned." [Ref. 22 p.157]

In summary, some informal indicators of ill conditioning were found in this analysis, but conclusive results about the degree to which the regression results might be misleading cannot be made from them alone.

The formal diagnostics and assessing of the seriousness of multicollinearity was performed following the procedure suggested by Belsey, Kuh and Welsch [Ref. 22 pp.152,160]. The technical background of this technique consisted of the singular value decomposition (SVD) of a matrix X, and the decomposition of the estimated regression variance in a manner corresponding to the SVD. The matrix X, consisted of n observations and p variates is subjected to singular value decomposition (SVD) which yields a set of condition indexes. The diagostic procedure suggested that an appropiate means for diagnosing degrading collinearity is the following double condition: (1) A singular value judged to have a high condition index (say, greater than 30), and which is associated with (2) High variance-decomposition proportions for two or more estimated regression coefficient variances (say, greater than 0.5). The condition indexes are the square roots of the ratios of the largest eigenvalue (of matrix X) to each individual eigenvalue. From the results obtained on Group One and Group Two separately, as they are shown in Appendix F, the analysis concluded that in the block regression equation there were no combinations of condition index and variance-decomposition proportions which meet the requirements for degrading collinearity,i.e., the highest condition index found in Group One was 19.58 but only one variance proportion associated was greater than 0.5; for Group Two, the highest condition index was 21.847 but no variance-proportions greater than 0.5 were found.

Actually, these diagnostics gave a confirmation of the results obtained with less rigorous test for multicollinearity when block regression was performed. The final

result of this analysis was conclusive in the sense that the set of selected explanatory variables (Q93A to Q93M) was free of multicollinearity. Therefore the regression estimates are accepted.

C. COMPARISON AND SUMMARY OF RESULTS

For each group, stepwise regression analysis gives a different set of predictors for Satisfaction with Military Life (Q96), which may be considered as free of ill conditioning after the diagnosis results presented in Section B.

For Group One, the younger officers, the perception of Satisfaction With Military Life is closely related to three factors with characteristics of military life: Immediate Supervisors, Work Schedule, and Having a Say. Immediate Supervisors alone explained 21.9 percent of the variation in Satisfaction With Military LIfe. For the second Group, officers with more than seven years in the service but less than or equal to ten years in the Air Force, Chance of Interesting Work (Q93E), and Medical Benefits (Q93D), were the two factors which best explain the variability of Satisfaction With Military Life. People to Work With and Work Schedule, were influential to a lesser extent. Only Work Schedule appears to be a common explanatory factor for the variability junior officers' perceived Satisfaction With Military Life.

VII. SUMMARY AND CONCLUSIONS

A. INTRODUCTION

This study developed and tested a model to analyze the problem of voluntary termination from the military among the junior officer community of the U.S. Air Force using a sequential methodology and focussing on the problem from three different perspectives: first, by considering the influence of the selected predictor variables (the 25 explanatory variables originally selected) on the decision to leave or remain beyond obligated service; second, by analyzing the turnover decision from a behavioral standpoint by differentiating between the long-term and the short-term decision using two specific descriminatory subgroups and third, by establishing a model able to explain the influence of alternative job opportunities provided by the civilian sector on the degree of Satisfaction With Military Life.

B. ANALYSIS OF EXPECTED YEARS OF SERVICE

The first approach to analyzing career orientation presented in Chapter IV, was undertaken using stepwise linear regression on data for two homogeneous groups: Group One, including junior officers with four or more years of active duty but less than or equal to five years of active duty who were within their initial obligation; and Group Two, including junior officers with seven or more years of active duty but less than or equal to ten years of service who were serving beyond completition of their initial obligated service. Multiple linear regression of Intended Years Beyond Obligatory Service (CO) with the original "best" set of 25 explanatory variables showed an overwhelming influence

of total Satisfaction With Military Life in explaining organizational commitment, e.g., career intent. In Group One, most of the variability of Intended Years Beyond Obligated Service (CO), was explained by Satisfaction With Military Life (only this variable enters the final equation). In Group Two, four variables explain 28 percent of the variability in Intended Years Beyond Obligated Service (CO): however, 14.7 percent of this variation is explained by Satisfaction Wih Military Life alone.

Four main conclusions may be drawn based on this first analysis:

1. Conclusions in the literature related to the influence of absolute levels of Satisfaction With Military Life on voluntary terminations (turnover) are supported. As indicated by the stepwise regression results for Group One, Satisfaction With Military Life decreases as intended tenure increases (34.5% of the variation in career intent is explained by this variable alone). In the case of Group Two, besides Satisfaction With Military Life, other intervening variables influence the decision about Intended Years Beyond Obligated Service, i.e., Air Force Academy as source of commission, Training Opportunities and Retirement Benefits, are the other three variables which enter the final equation.
2. The two sample groups showed appreciable differences. Group two officers were more likely to be influenced by alternative job comparisons in their decision to stay beyond obligatory service. The variables related to civilian job alternatives which entered the final equation for Group two were Training Opportunities and Retirement Benefits.
3. For both groups there exists a high positive correlation between Satisfaction With Military Life (Q96)

and the set of variables related to alternative job opportunities in the civilian sector (Q93A to Q93M).

4. Satisfaction With Military Life is a "good" predictor for Organizational Commitment (measured as intended years beyond obligatory service) but it does not explain the extent to which personnel are satisfied with military life and work conditions relative to alternatives perceived to be available from alternatives in the civilian sector.

C. ANALYSIS OF TURNOVER AND CAREER INTENTIONS

In light of the results of the initial stepwise regression, the candidate variables selected for the second approach to the problem of voluntary turnovers were the Military/Civilian Job comparisons (Q93A to Q93M). Discriminant analysis was undertaken to identify separate sets of explanatory variables for the long-term decision and the short-term decision. The two original groups were subdivided in two subgroups called Stayer/Leaver and Career/Non-Career. As explained in Sections A and B in Chapter V, officers who intended to leave the Air Force at the conclusion of their initial obligation were distinguished from those who intended further service (Stayers/Leavers), and those junior officers who intended 20 years or more of service were differentiated from those intending less than 20 years of service (Careerists/Non-Careerists). The results of this analysis are discussed in Chapter V. The same discriminant analysis was then repeated using Satisfaction With Military Life (Q96) as the only classificatory variable.

The most interesting result of these discriminant analyses is the fact that the discriminatory power of the discriminant function using Satisfaction With Military Life

(Q96) as the only classificatory variable was greater than the classificatory power of the set of civilian job alternatives (Q93A to Q93M) for Group One in both discriminatory functions (Stayer/Leaver and Career/Non-career). For Group Two this result is reversed, that is, the classificatory power of the set of job comparison variables is greater than the classificatory power of satisfaction alone. As mentioned in Chapter V, the discriminant analysis was undertaken using a stepwise technique for selection of classificatory variables. The explanatory variables were also entered into an additional discriminant function as a block (direct method) and the basic or general results did not change, although the classificatory power differed slightly in some instances.

The most important results and conclusions drawn from the discriminant functions for each group may be summarized:

1. GROUP ONE

For both discriminant functions, Short-term decision (Stayer/Leaver), and Long-term decision (Career/Non-Career), there was a great deal of consistency in the selection of explanatory variables. Having a Say (Q93B), and People to Work With (Q93I) (with correlation of 0.17 between them) are the two most influential classificatory variables in both discriminant functions in spite of the fact than their degree of importance was reversed in the two analyses, i.e., for the Short-term decision, Having a Say was more influential than People to Work With but was less important when the Long-term decision was considered.

Further results on the discriminant analyses for Group One, were:

a) Satisfaction With Military Life (Q96), used as the only classificatory variable, had a classificatory power

superior to the the set of variables related to job alternatives provided by the civilian sector, i.e., Q93A to Q93M. This implies a strong dependency on Satisfacion With Military Life on the part of the youngest group in the sample and a less likely tendency to make alternative job comparisons with the civilian sector. This is understandable given their relatively short professional experience.

b) The marked influence of the two variables; Having a Say (Q93B) and People to Work With (Q93I), in the discriminant funcitons for this group revealed a difficult managerial issue: these two factors represent much of the philosophy of the military; obedience without discussion and acceptance of leaders because they have a higher rank are not easy when the officer is at the begining of his career.

c) The classificatory power of the set of explanatory variables related to job alternatives was not especially high (66.7% and 69.5% for Short-term decision and Long-term decision respectively) in Group One. The classificatory power of Satisfaction With Military Life (83.4% and 81.4% for the Short-term decision and the Long-term decision respectively) was rather high but this variable is not informative enough for managerial, planning and command purposes. Satisfaction With Military Life is an important determinant of voluntary terminations but it does not have clear policy implications. However the analysis of turnover as it is related to comparisons between satisfaction obtained from military service and satisfaction that is perceived to be available from alternatives in the civilian sector is much more rich in policy related conclusions.

2. GROUP TWO

As mentioned above, for Group Two, the classificatory power of Satisfaction With Military Life (Q96) used alone was inferior to the classificatory power of the set of variables related to alternative job conditions provided by the civilian sector (Q93A to Q93M). This contrasting result with respect to Group One revealed a tendency among members of Group Two to found their Long-term decisions and their Short-term decisions on comparisons of alternatives. Tenure had an important role in this analysis and the immediate conclusion is that members in Group Two are more likely to make comparisons with job alternatives than members of Group One. Some of the major implications drawn from these results were:

a) The Short-term decision is highly influenced by Training Opportunities (Q93H) in Group Two. To a lesser extent this decision is also influenced by Job Security (Q93K), Chance of Interesting Work (Q93E) and Medical Benefits (Q93I). These four factors are likely to be managed by planners and chiefs in the chain of command and it should be possible to reduce voluntary quits at the end of obligatory service among these junior officers by introducing covenient personnel policies.

b) Only one small difference with respect to the Short-term decision was observed when the Long-term decision was analyzed: Medical Benefits (Q93D) became an important influence in addition to Training Opportunities (Q93H) and Chance of Interesting Work (Q93E). Actually, for members of Group Two, the decision to be a careerist was more strongly related to some long-term benefits from the Service (training, medical benefits) and less strongly to some of the structural elements of military

life (Having a Say, Supervisors, Work Schedule) which so strongly influenced the Long-term decision of the members in Group One.

c) Training Opportunities (Q93H) became the most influential intervening variable in the Short-term decision and the Long-term decision for members of Group Two. This supports the conclusion that training policies and training opportunities in the Air Force are a crucial matter in the manpower planning and programming process. On the other hand, there existed a "high" correlation between Satisfaction With Military Life and Training Opportunities (R=0.42) as shown in the following section of conclusions.

D. ANALYSIS OF SATISFACTION WITH MILITARY LIFE

The third and final approach to the problem of voluntary terminations consisted in the analysis of Satisfaction With Military Life, which was determined to be the most influential determinant of turnover in the first approach discussed above. The focus of this part of the study was comparisons between satisfaction obtained from military life and satisfaction that is perceived to be available from alternatives provided by the civilian labor market and how such comparisons affect total or general satisfaction with military life. Linear regression analysis was undertaken using Satisfaction With Military Life (Q96) as the dependent variable and with the set of variables representing the comparison alternatives (Q93A to Q93M) as candidate explanatory variables. A formal diagnosis of multicollinearity confirmed the accurancy of the regression coefficients.

By group, the most important conclusions for this part of the analysis were:

GROUP ONE

1. For Group One, the structural elements of military life, i.e., Immediate Supervisors (Q93A), Having a Say (Q93B) and Work Schedule (Q93J), as they are perceived in comparison with civilian life, were shown to be most explanatory of variations in Satisfaction With Military Life. This result confirms previous findings in this thesis summarized above in Section A.
2. Considering that this study included only Air Force officers belonging to the Operational environment, the inclusion of Work Schedule (Q93J) in the final equation was not a surprise. Generally, Support officers work a standard "duty day", e.g., 0730 hours to 1700 hours; Pilots, on the other hand, work a "by activity" duty schedule which changes according to assigned flights, alert tours, and deployments. This is probably an insolvable source of dissatisfaction inherent to the Air Force Pilot officer which generates a qualitatively different life-style if compared with a Support officer life-style. This could be the focus of further analysis outside of the scope of this thesis.

GROUP TWO

1. The regression equation for Group Two included, again, Work Schedule (Q93J) as a factor determining the level of Satisfaction With Military Life, as well as Chance of Interesting Work (Q93E), Medical Benefits (Q93H) and People to Work With (Q93I). The first variable does not need further explanation and the other three confirmed results of previous discriminant analyses.
2. The regression results for this group support the hypothesis that Satisfaction With Military Life

varies as tenure increases. Younger officers were more likely to be influenced by structural of military life than were the older officers.

In general, this study answered the major questions proposed in Chapter III. **Organizational Commitment,** measured as intended years of service beyond obligated service (CO), was found to be highly influenced by wether or not the junior officers were within their period of initial obligation. For the younger officers of the data set (Group One), Satisfaction With Military Life was an overwhelming determinant of their career orientation. For Group Two (junior officers without initial obligation), besides Satisfaction With Military Life, three more factors (Air Force Academy as source of commission, Training Opportunities and Retirement Benefits) were found to be influential.

Particularly important were the fundings about the influence of **alternative job comparisons** on overall Satisfaction With Military Life. Using linear regression and discriminant analysis, this thesis demostrated that the most influential variables affecting the level of satisfaction with military life were perceptions of comparable alternatives provided by the the civilian sector.

APPENDIX A

SURVEY QUESTIONS FOR CANDIDATE VARIABLES

SURVEY QUESTION NUMBER	QUESTION	SCALE
5	Through which of the following officer procurement programs did you obtain your commission/warrant?	
	Academy Graduate (USMA, USNA, USAFA	01
	Limited Duty Officer Program	02
	Officer Candidate School or Officer Training School	03
	ROTC (Regular)	04
	ROTC (Scholarship)	05
	Aviation Officer Candidate or Aviation Cadet	06
	Warrant Officer Program	07
	Direct Appointment from Civilian Status	08
	Reserve Officer Candidate	09
	Platoon Leaders Course/WOC (USMC)	10
	Health Professional Scholarship Program	11
	Medical Specialist Program	12
	Other	13
6	Officers coming on their first tour of active duty sometimes incur an initial service commitment. Are you presently serving within your INITIAL SERVICE OBLIGATION as a commissioned officer?	

Does not apply, I did not have an initial obligation..................................7

Yes, I am serving within my INITIAL OBLIGATION..................................1

No, I am serving within the FIRST YEAR AFTER MY INITIAL OBLIGATION.......................2

No, I am serving MORE THAN ONE YEAR BEYOND MY INITIAL OBLIGATION.......................3

7 How many years of obligated service do you have remaining in your present obligation?

Does not apply, I do not have a service obligation..................................7

Less than one year..............................1

At least 1 year but less than 2 years........2

At least 2 years but less than 3 years.......3

At least 3 years but less than 4 years.......4

At least 4 years but less than 5 years.......5

5 years or more..............................6

11 To the nearest year and month, how long have you been on active duty?

If you had a break in service, count current time and time in previous tours. Count time spent at a military academy and prior enlisted service.

YEARS |___|___|

and

MONTHS |___|___|

12 When you finally leave the military, how many total years of service do you expect to have?

# YEARS |___|___|

22 Below are some reasons military personnel may have for leaving the Armed Forces. If you have considered leaving the service in the near future, please mark the three most important reasons why you would leave the service.

Does not apply, I plan to retire..............01
Does not apply, I have not considered
leaving the service..........................01
Being forced out.............................01
Dislike location of my assigments............01
Frequency of PCS moves.......................01
Dislike being separated from my family.......01
My family want me to leave the service.......01
Disagree with personnel policies.............01
Not enough personal freedom..................01
Discrimination against military personnel,
based on race, sex, or rank..................01
Not enough opportunity for advancement.......01
Low pay and allowances.......................01
Better civilian job opportunities............01
Reduction of military benefits...............01
Unable to practice my job skills.............01
Bored with my job............................01
Unreasonable work schedules and long
hours or work................................01
Plan to continue my education/use
G.I./VEAP benefits...........................01

Variable Name:	Content: (Reas. Wd. Lv. Serv.)
Q22F	Family separation
Q22H	Personnel policies
Q22M	Bttr. Civ. Opps.
Q22S	Unreas. Wk sched.

32 When you FIRST ENTERED ACTIVE SERVICE, how old were you? Count time spent at a military academy and prior enlisted service as active duty.

AGE AT ENTRY |___|___|

63 Which of the following special monthly pays or allowances do you currently receive? Be sure to mark all that apply.

I don't receive any special monthly pays.... 1
Jump Pay................................... 1
Sea Pay.................................... 1
Submarine Pay.............................. 1
Flight Pay................................. 1
Foreign Duty Pay........................... 1
Pro Pay.................................... 1
COLA (Overseas Cost of Living Allowance).... 1
Overseas Special Housing Allowance......... 1

91 Suppose you were to leave the service NOW and try to find a civilian job. How likely would you be to find a civilian job that uses the skills in your military career field?

		Mark One
No Change	(0 in 10)	00
Very slight possibility	(1 in 10)	01
Slight possibility	(2 in 10)	02
Some possibility	(3 in 10)	03
Fair possibility	(4 in 10)	04
Fairly good possibility	(5 in 10)	05
Good possibility	(6 in 10)	06
Probable	(7 in 10)	07
Very probable	(8 in 10)	08
Almost sure	(9 in 10)	09
Certain	(10 in 10)	10
Don't know		-8

93 If you were to leave the service NOW and take a civilian job, how do you think that job would compare with your present military job in regard to the following work conditions?

WORK CONDITIONS	CIVILIAN JOB WOULD BE A LOT BETTER	CIVILIAN JOB WOULD BE SLIGHTLY BETTER	ABOUT THE SAME IN A CIVILIAN AND MILITARY JOB	CIVILIAN JOB WOULD BE SLIGHTLY WORSE	CIVILIAN JOB WOULD BE A LOT WORSE
The immediate supervisors	1	2	3	4	5
Having a say in what happens to me	1	2	3	4	5
The retirement benefits	1	2	3	4	5
The medical benefits	1	2	3	4	5
The change for interesting and challenging work	1	2	3	4	5
The wages or salaries	1	2	3	4	5
The chance for promotion	1	2	3	4	5
The opportunities for training	1	2	3	4	5
The people I work with	1	2	3	4	5
The work schedule and hours of work	1	2	3	4	5
The job security	1	2	3	4	5
The equipment I would use on the job	1	2	3	4	5
The location of the job	1	2	3	4	5

Variable Name:	Content
Q93A	Immed. Supervisors
Q93B	Having a Say
Q93C	Retirement Benefits
Q93D	Medical Benefits
Q93E	Interesting Wk.
Q93F	Wages or Salaries
Q93G	Chance Promotion
Q93H	Training Opportunity
Q93I	People Work With
Q93J	Wk. Sched. and Hrs.
Q93K	Job Security
Q93L	Equipment
Q93M	Job Location

94 Suppose you left the service NOW. How do you think the total military compensation you are receiving now (pay and benefits) would compare with the total compensation (pay and benefits you would receive in a civilian job?

Mark One

A lot more in the military.........1
A little more in the military......2
About the same in a military and
civilian job......................3
A little more in civilian life.....4
A lot more in civilian life........5
I have no idea what i could
earn in civilian life............6

95 How much do you agree or disagree with each of the following statements about military life?

	STRONGLY AGREE	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	STRONGLY DISAGREE
Life in the mil. is about what Iexpected it to be.......	1	2	3	4	5
Mil. personnel in the future will not have as good retirement benefits as I have now..	1	2	3	4	5
My mil. pay and benefits will not keep up with inflation.	1	2	3	4	5
My family would be better off if I took a civil. job............	1	2	3	4	5

Variable Name:	Content:
Q95A	Mil. Life as Expected
Q95B	Fut. Retirement Benefits
Q95C	Mil. Pay and Benefits
Q95D	Fam. Better Off it Took Civ. Job

96 Now, taking all things together, how satisfied or dissatisfied are you with the military as a way of life? Mark one number on the line below.

Very Dissatisfied ... Satisfied

o....o....o....o....o....o....o

1 2 3 4 5 6 7

APPENDIX B

STATISTICS FROM PRELIMINARY REGRESSION

GROUP ONE

	MEAN	CASES	LABEL
ACAD	0.154	104	ACADEMY GRADUATE
OTS	0.183	104	OFFICERS TRAINING
ROTREG	0.250	104	ROTC-REGULAR
Q22F	0.252	103	WD LV SERV-REAS-SEPS FROM FAMILY
Q22H	0.243	103	WD LV SERV-REAS-PERSONNEL POL
Q22M	0.427	103	WD LV SERV-REAS-BTR CIV JB OPP
Q22S	0.311	103	WD LV SERV-REAS-UNREAS WK SCHED-LNG
OUTDESIG	0.743	105	WORK OUT OF SPECIALITY
Q32	21.913	104	AGE AT SERVICE ENTRY
Q63A	0.846	104	DONT RECEIVE ANY SPEC MO. PAYS
Q91	4.667	105	LIKLY USE SKILLS-CIV JOB
Q93A	2.385	104	CIV VS MIL JB-IMMED SUPERVISORS
Q93B	1.745	102	CIV VS MIL JB-HAVING SAY
Q93C	2.903	103	CIV VS MIL JB-RETIREMENT BENEFITS
Q93E	2.272	103	CIV VS MIL JB-CHNCE INTRSTNG WK
Q93F	1.933	104	CIV VS MIL JB-WAGE-SAL
Q93H	2.481	104	CIV VS MIL JB-TRNG OPPRTNTY
Q93I	2.750	104	CIV VS MIL JB-PPL WK WITH
Q93J	1.563	103	CIV VS MIL JB-WRK SCHED-HRS
Q93L	2.087	104	CIV VS MIL JB-EQUIPMENT
Q94	3.581	105	CIV VS MIL COMPENSATION
Q95A	2.943	105	MIL LIFE AS EXPECTED
Q95C	1.419	105	MY MIL PAY-BNFTS NT KP UP W-INFLAT
Q95D	2.125	104	MY FMLY BTR OFF W-ME IN CIV JOB
Q96	3.533	105	SATISFACTION W-MILITARY LIFE
CO	7.415	94	MEASURE FOR ORGAN. COMMITMENT

N OF CASES = 105

```
                         GROUP TWO

               MEAN    CASES   LABEL

ACAD          0.066      91    ACADEMY GRADUATE
OTS           0.462      91    OFFICERS TRAINING
ROTREG        0.297      91    ROTC-REGULAR
Q22F          0.303      89    WD LV SERV-REAS-SEPS FROM FAMILY
Q22H          0.348      89    WD LV SERV-REAS-PERSONNEL POL
Q22M          0.427      89    WD LV SERV-REAS-BTR CIV JB OPP
Q22S          0.258      89    WD LV SERV-REAS-UNREAS WK SCHED-LNG HRS
OUTDESIG      0.747      91    WORK OUT OF SPECIALITY
Q32          21.978      90    AGE AT SERVICE ENTRY
Q63A          0.912      91    DONT RECEIVE ANY SPEC MO. PAYS
Q91           5.385      91    LIKLY USE SKILLS-CIV JOB
Q93A          2.400      90    CIV VS MIL JB-IMMED SUPERVISORS
Q93B          1.697      89    CIV VS MIL JB-HAVING SAY
Q93C          2.556      90    CIV VS MIL JB-RETIREMENT BENEFITS
Q93E          2.322      90    CIV VS MIL JB-CHNCE INTRSTNG WK
Q93F          1.753      89    CIV VS MIL JB-WAGE-SAL
Q93H          2.589      90    CIV VS MIL JB-TRNG OPPRTNTY
Q93I          2.659      88    CIV VS MIL JB-PPL WK WITH
Q93J          1.689      90    CIV VS MIL JB-WRK SCHED-HRS
Q93L          2.044      90    CIV VS MIL JB-EQUIPMENT
Q94           3.923      91    CIV VS MIL COMPENSATION
Q95A          2.648      91    MIL LIFE AS EXPECTED
Q95C          1.231      91    MY MIL PAY-BNFTS NT KP UP W-INFLATN
Q95D          2.078      90    MY FMLY BTR OFF W-ME IN CIV JCB
Q96           3.800      90    SATISFACTION W-MILITARY LIFE
CO            8.035      85    MEASURE FOR ORGAN. COMMITMENT

N OF CASES =         91
```

TABLE XVII

Correlation Matrix Group One

	1	2	3	4	5	6	7	8	9	10	11	12	13
ACAD	--												
OTS	-20	--											
ROTREG	24	-27	--										
Q32	-73	38	08	--									
Q22F	11	06	-01	-06	--								
Q22H	-17	-02	11	12	-12	--							
Q22M	23	-20	-06	-23	-05	-16	--						
Q22S	11	-16	-04	-22	-00	-18	26	--					
OUTDES	07	05	03	-14	-02	11	-04	14	--				
Q63A	11	13	-19	02	18	-00	04	23	06	--			
Q91	25	-39	-19	-19	02	08	24	15	-03	31	--		
Q93A	02	09	-14	14	-13	-02	-06	-15	-34	02	-01	--	
Q93B	-00	-03	03	-02	-16	03	08	-03	-31	-13	08	42	--
Q93C	07	14	05	-01	-00	-02	-24	-15	-06	-24	-32	15	29
Q93E	01	04	-04	03	04	-00	06	-01	-09	17	12	33	34
Q93F	-02	19	12	06	21	-03	-48	-24	-10	-13	-45	26	16
Q93H	14	-06	05	-17	06	09	09	-18	06	-06	00	37	30
Q93I	-07	22	-05	11	-15	-00	-14	02	-09	12	-04	49	17
Q93J	06	17	06	00	-21	-03	-12	-17	-17	-04	-05	17	20
Q93L	20	03	05	-17	-00	-19	-07	-12	-19	-13	-27	29	31
Q94	08	-17	-06	-15	-06	-00	35	26	04	14	36	-19	13
Q95A	-14	07	-08	11	-12	08	-00	10	12	00	-01	-27	-36
Q95C	25	-03	02	-22	04	06	-06	-09	05	-19	-12	-08	06
Q95D	-05	16	05	10	-33	09	-21	-16	-28	-13	-12	42	41
Q96	-06	01	10	14	-17	-14	-05	-19	-14	-23	-10	46	45
CO	-06	-02	03	00	-13	-01	-13	-11	-18	-25	-13	31	37

CONTINUATION CORRELATIONS GROUP ONE

	14	15	16	17	18	19	20	21	22	23	24	25	26
ACAD													
OTS													
ROTREG													
Q32													
Q22F													
Q22H													
Q22M													
Q22S													
OUTDES													
Q63A													
Q91													
Q93A													
Q93B													
Q93C	--												
Q93E	03	--											
Q93F	47	03	--										
Q93H	26	47	15	--									
Q93I	16	44	14	34	--								
Q93J	30	03	23	-01	25	--							
Q93L	39	21	37	25	20	26	--						
Q94	-45	-02	-66	-23	-04	-20	-32	--					
Q95A	-26	-19	-18	-16	-16	-21	-28	14	--				
Q95C	29	-05	31	07	-11	10	23	-24	-11	--			
Q95D	26	34	29	19	35	39	27	-28	-19	10	--		
Q96	29	33	15	25	31	34	26	-12	-50	-08	47	--	
CO	15	16	12	11	26	18	13	-00	-29	-17	36	58	--

DECIMAL POINTS HAVE BEEN OMITTED FROM CORRELATIONS

TABLE XVIII

Correlation Matrix Group Two

	1	2	3	4	5	6	7	8	9	10	11	12	13
ACAD	--												
OTS	-24	--											
ROTREG	-17	-60	--										
Q32	-56	16	14	--									
Q22F	11	-10	-01	-21	--								
Q22H	-19	19	-12	13	-27	--							
Q22M	-05	-18	02	07	-12	-01	--						
Q22S	-05	03	00	-15	-05	-05	-09	--					
OUTDES	-15	-02	-12	08	-03	17	15	-03	--				
Q63A	-07	28	-22	06	12	06	03	18	17	--			
Q91	05	-01	06	08	-08	07	17	12	07	24	--		
Q93A	12	-03	11	04	19	-15	-04	-05	-17	09	-02	--	
Q93B	04	04	-02	-09	37	-09	-18	-05	-09	-11	-06	21	--
Q93C	24	05	-14	-17	22	-26	-14	01	-20	-11	-28	22	12
Q93E	08	-19	14	-08	08	-03	10	-05	-07	05	29	33	22
Q93F	-11	09	04	10	00	08	-25	-15	-11	-16	-35	00	-01
Q93H	19	-11	02	04	06	-05	10	05	-20	06	09	38	19
Q93I	24	-07	06	-04	13	-09	00	-04	-06	16	06	49	12
Q93J	05	07	-05	01	03	-01	04	-36	-09	-17	-19	08	07
Q93L	-11	00	04	00	13	-07	-03	-13	-08	-11	-25	16	14
Q94	-13	09	02	12	-14	22	14	06	13	21	28	-01	21
Q95A	-04	01	-13	-02	-16	04	-06	20	10	-15	-08	-30	-04
Q95C	-13	-03	-01	09	03	-06	-04	03	01	-01	-28	15	27
Q95D	02	-02	10	16	-10	-21	-08	-15	-20	-23	-20	27	28
Q96	07	09	20	-04	05	-09	00	-21	-27	-07	11	34	23
CO	25	-12	11	-19	00	-14	-12	-23	-20	-18	-09	00	01

CONTINUATION CORRELATIONS GROUP TWO

	14	15	16	17	18	19	20	21	22	23	24	25	26
ACAD													
OTS													
ROTREG													
Q32													
Q22F													
Q22H													
Q22M													
Q22S													
OUTDES													
Q63A													
Q91													
Q93A													
Q93B													
Q93C	--												
Q93E	05	--											
Q93F	24	-24	--										
Q93H	25	39	-09	--									
Q93I	13	40	-22	40	--								
Q93J	07	-05	16	02	-04	--							
Q93L	-00	12	08	25	03	13	--						
Q94	-34	04	-59	-18	03	-17	-16	--					
Q95A	-10	-23	-05	-15	-31	-00	-13	-03	--				
Q95C	04	-11	20	-00	00	17	05	-26	01	--			
Q95D	25	12	21	25	24	28	06	-41	-11	34	--		
Q96	04	53	01	42	42	21	09	-15	-31	04	40	--	
CO	22	20	07	02	06	18	01	-16	-14	-17	19	38	--

DECIMAL POINTS HAVE BEEN OMITTED FROM CORRELATIONS

APPENDIX C

COMPLETE RESULTS OF DISCRIMINANT ANALYSIS

TABLE XIX

Group One Stayer/Leaver

Subgroup 1 : Intend stay beyond obligated service (48)

Subgroup 2 : Intend leave after obligated service (54)

VARIABLE	Wilk's Lambda	Standarized Canonical Discrim. Function Coeffic.
Q96, Satisfaction with Military Life	0.642	1.000

Canonical Correlation = 0.598

For Wilk's Lambda of 0.64, chi-square = 44.04

With 1 degree of freedom; significance = 0.001

Classification

Actual	Predicted Stayer	Predicted Leaver
Stayer 48	42 (87.5%)	6 (12.5%)
Leaver 54	11 (20.4%)	43 (79.6%)

Percent of Grouped Cases Correctly Classified = 83.3%

TABLE XX

Group One Career / Non-Career

Subgroup 1 : Intend stay beyond obligated service (44)

Subgroup 2 : Intend leave after obligated service (58)

VARIABLE	Wilk's Lambda	Standarized Canonical Discrim. Function Coeffic.
Q96, Satisfaction with Military Life	0.664	1.000

Canonical Correlation = 0.578

For Wilk's Lambda of 0.664, Chi-square = 40.6
With 1 degree of freedom; significance = 0.001

Classification

Actual	Predicted	
	Stayer	Leaver
Stayer 44	39(88.6%)	5(11.4%)
Leaver 58	14(24.1%)	44(75.9%)

Percent of Grouped Cases Correctly Classified = 81.4%

TABLE XXI

Group Two Stayer / Leaver

Subgroup 1 : Intend stay beyond obligated service (63)

Subgroup 2 : Intend leave after obligated service (25)

VARIABLE	Wilk's Lambda	Standarized Canonical Discrim. Function Coeffic.
Q96, Satisfaction with Military Life	0.917	1.000

Canonical Correlation = 0.287

For Wilk's Lambda of 0.917, Chi-square = 7.4

With 1 degree of freedom; significance = 0.007

Classification

Actual	Predicted	
	Stayer	Leaver
Stayer 63	61 (96.8%)	2 (3.2%)
Leaver 25	23 (92.0%)	2 (8.0%)

Percent of Grouped Cases Correctly Classified = 71.6%

TABLE XXII

Group Two Career / Non-Career

Subgroup 1 : Intend stay beyond obligated service (58)

Subgroup 2 : Intend leave after obligated service (29)

VARIABLE	Wilk's Lambda	Standarized Canonical Discrim. Function Coeffic.
Q96,Satisfaction with Military Life	0.809	1.000

Canonical Correlation = 0.436

For Wilk's Lambda of 0.809, Chi-square = 17.9

With 1 degree of freedom; significance = 0.001

Classification

Actual	Predicted	
	Stayer	Leaver
Stayer 58	54(93.1%)	4 (6.9%)
Leaver 29	18(62.1%)	11(37.9%)

Percent of Grouped Cases Correctly Classified = 74.7%

APPENDIX D

ANALYSIS OF RESIDUALS

```
                        GROUP ONE
TOTAL CASES =      105

NORMAL PROBABILITY (P-P) PLOT
STUDENTIZED RESIDUAL
  1.00 .---------.---------.---------.---------*
       I                                    ***I
       I                                  **   I
       I                                 *     I
       I                              ***      I
   .75 .                             *         .
       I                           .*          I
 O     I                         ***           I
 B     I                       **              I
 S     I                     .*                I
 E .50 .                  ****                 .
 R     I                **                     I
 V     I             ***                       I
 E     I           **.                         I
 D     I          *.                           I
   .25 .        **                             .
       I     ***                               I
       I     .                                 I
       I  ***                                  I
       I *                                     I
       .*--------.---------.---------.---------. EXPECTED
               .25        .5       .75       1.0
```

```
STANDARDIZED SCATTERPLOT
ACROSS - *RESID     DOWN - *PRED
OUT ..-----.-----.-----.-----.-----.-----..
  3 .                                     .   SYMBOLS:
    I             .                       I
    I                   ..     .          I      MAX N
  2 .       .         .   .               .
    I    .        .    :                  I   .    1.
    I          .    .    .        .       I   :    2.
  1 .                .    .               .   *    7.
    I                *.   *    .          I
    I        :    *    *    *             I
  0 .               *:   .    .           .
    I      *    *    *    *    .          I
    I             .                  .    I
 -1 .        *    *    *:   :    .        .
    I            *    :   *    .    :     I
    I                                     I
 -2 .                                     .
    I                                     I
    I                                     I
 -3 .                                     .
OUT ..-----.-----.-----.-----.-----.-----..
    -3    -2    -1     0     1     2     3 OUT
```

```
                            GROUP  TWO

TOTAL CASES =       91

NORMAL PROBABILITY (P-P) PLOT
STUDENTIZED RESIDUAL
  1.00 .---------.---------.---------.---------*
       I                                    ***I
       I                                   *   I
       I                                 **    I
       I                             ****      I
   .75 .                           **.         .
       I                          *.           I
 O     I                        **             I
 B     I                       *               I
 S     I                     **                I
 E .50 .                   .*                  .
 R     I                 ***                   I
 V     I               .*                      I
 E     I             ***                       I
 D     I          ***                          I
   .25 .         *                             .
       I     ****                              I
       I    *.                                 I
       I  **                                   I
       I *                                     I
       .*--------.---------.---------.---------. EXPECTED
               .25        .5       .75       1.0
```

```
STANDARDIZED SCATTERPLOT
ACROSS - *RESID     DOWN - *PRED
OUT ..-----.-----.-----.-----.-----.-----..
  3 .                                     .   SYMBOLS:
    I                                     I
    I                                     I      MAX N
  2 .               .     :               .
    I           :     :                   I   .    1.
    I           .      .*    .     .      I   :    2.
  1 .        :     .    .      *          .   *    5.
    I          :    ...   *.              I
    I           :.    ..    .:    ..      I
  0 .       ..     :   *:*   ...          .
    I          :    ..    :.              I
    I                 :     .           . I
 -1 .      :     .:    .:     .           .
    I              *     *     .          I
    I          .     ..          .        I
 -2 .                                     .
    I                         .           I
    I                                     I
 -3 .                                     .
OUT ..-----.-----.-----.-----.-----.-----..
    -3    -2    -1     0     1     2     3 OUT
```

APPENDIX E

CORRELATIONS FROM STEPWISE REGRESSION

CORRELATIONS GROUP ONE

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q93A	--													
Q93B	42	--												
Q93C	15	29	--											
Q93D	09	15	63	--										
Q93E	33	34	03	05	--									
Q93F	26	16	47	30	03	--								
Q93G	43	38	15	08	34	33	--							
Q93H	37	30	26	21	47	15	28	--						
Q93I	49	17	16	15	44	14	30	34	--					
Q93J	17	20	30	26	03	23	25	-01	25	--				
Q93K	14	13	23	35	12	16	25	07	17	18	--			
Q93L	29	31	39	23	21	37	17	25	20	26	18	--		
Q93M	04	29	07	12	18	03	15	13	14	19	07	13	--	
Q96	46	45	29	04	33	15	35	25	31	34	10	26	22	--

DECIMAL POINTS HAVE BEEN OMMITTED

CORRELATIONS GROUP TWO

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Q93A	--													
Q93B	21	--												
Q93C	22	12	--											
Q93D	11	08	43	--										
Q93E	33	22	05	03	--									
Q93F	00	-01	24	24	-24	--								
Q93G	40	49	05	13	28	04	--							
Q93H	38	19	25	32	39	-09	39	--						
Q93I	49	12	13	05	40	-22	16	40	--					
Q93J	08	07	07	13	-05	16	00	02	-04	--				
Q93K	24	24	30	11	28	01	37	39	28	09	--			
Q93L	16	14	-00	02	12	08	30	25	03	13	-00	--		
Q93M	10	11	-13	-12	05	11	19	07	04	19	15	-04	--	
Q96	34	23	04	25	53	01	31	42	42	21	24	09	03	--

DECIMAL POINTS HAVE BEEN OMMITTED

APPENDIX F

RESULTS OF MULTICOLLINEARITY DIAGNOSIS

TABLE XXIII

GROUP ONE - Dependent Variable Q96

Number	Condit. Index	Variance-decomposition Proportions												
		A	B	C	D	E	F	G	H	I	J	K	L	M
1	1.000	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2	6.525	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3	7.657	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
4	8.133	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.1
5	8.870	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
6	9.589	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.1	.2
7	9.806	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
8	10.523	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.3	.0
9	11.905	.3	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.1	.0
10	13.385	.0	.0	.0	.0	.1	.2	.5	.1	.0	.0	.0	.1	.0
11	14.298	.0	.0	.0	.3	.0	.0	.1	.3	.0	.0	.1	.0	.0
12	15.516	.0	.0	.2	.1	.0	.0	.0	.2	.1	.0	.0	.0	.0
13	18.498	.1	.1	.5	.2	.0	.0	.0	.0	.0	.0	.1	.0	.1
14	19.580	.2	.0	.0	.0	.1	.0	.0	.0	.7	.0	.0	.0	.0

VARIABLES

A	Inmediate Supervisors
B	Having-Say
C	Retirement Benefits
D	Medical Benefits
E	Chance for Interesting Work
F	Wages or Salaries
G	Chance of Promotion
H	Trainning Opportunities
I	People to Work With
J	Work Schedule
K	Job Security
L	Job Equipment
M	Job Location

TABLE XXIV

GROUP TWO - Dependent Variable : Q96

Number	Condit. Index	Variance-Decomposition Proportions												
		A	B	C	D	E	F	G	H	I	J	K	L	M
1	1.000	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2	5.972	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
3	6.938	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
4	8.028	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1
5	8.234	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
6	9.282	.0	.1	.0	.0	.0	.2	.0	.0	.0	.3	.0	.0	.0
7	9.887	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.3	.1	.1
8	10.333	.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
9	11.081	.2	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
10	11.566	.0	.0	.1	.0	.1	.1	.0	.0	.0	.1	.0	.1	.3
11	13.010	.0	.1	.4	.0	.1	.0	.1	.0	.0	.1	.1	.0	.0
12	14.915	.0	.0	.0	.2	.0	.1	.0	.8	.0	.0	.1	.1	.0
13	16.672	.5	.0	.0	.0	.0	.0	.4	.0	.3	.0	.1	.0	.0
14	21.847	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.1

VARIABLES

A	Immediate Supervisors
B	Having-Say
C	Retirement Benefits
D	Medical Benefits
E	Chance for Interesting Work
F	Wages or Salaries
G	Chance of Promotion
H	Trainning Opportunities
I	People to Work With
J	Work Schedule
K	Job Security
L	Job Equipment
M	Job Location

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